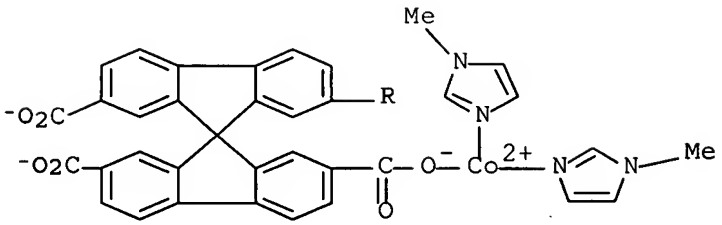

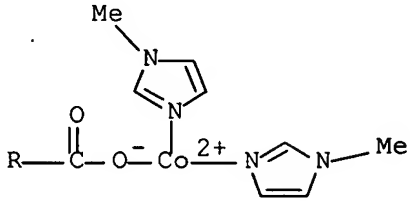

Substance Class Identifier
CCS
Molecular Formula
C45 H36 Co2 N8 O8
Author/Inventor
Cobalt, tetrakis(1-methyl-1H-imidazole-κN3)[μ-[9,9'-spirobi[9H- fluorene]-2,2',7,7'-tetracarboxylato(4-)]]di-(9CI)

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     (FILE 'HOME' ENTERED AT 08:01:44 ON 05 SEP 2007)

     FILE 'REGISTRY' ENTERED AT 08:02:03 ON 05 SEP 2007
L1              STRUCTURE UPLOADED
L2            3 S L1 SSS SAM
L3           19 S L2 SSS FULL

     FILE 'CAPLUS' ENTERED AT 08:10:00 ON 05 SEP 2007

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L4           15 L3

=> s l3/prep
             15 L3
        4456429 PREP/RL
L5           10 L3/PREP
                (L3 (L) PREP/RL)

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L6            7 L5 AND PY<=2003

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L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarboxylic acid (CA INDEX NAME)

CAS Registry Number®

73100-44-4 CAPLUS

171408-78-9 CAPLUS

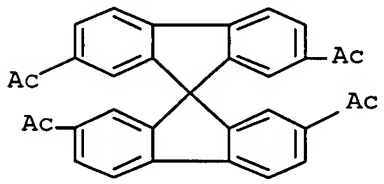
Reference Count

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

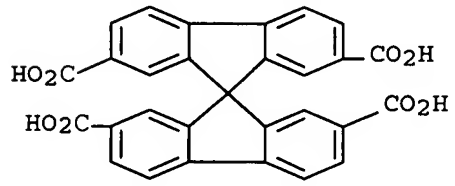
CAS Registry Number
73100-44-4 CAPLUS

Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)




CAS Registry Number
171408-78-9 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarboxylic acid (CA INDEX NAME)




Controlled or Index Terms

73100-44-4P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) ; RACT (Reactant or reagent)
(use of spiro compds. as laser dyes)
171408-78-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) ; RACT (Reactant or reagent)
(use of spiro compds. as laser dyes)

Abstract

The use of spiro compds. described by the general formula I (K1 and K2 = independently selected conjugated systems), especially spirobifluorene derivs., as laser dyes is described.

Other Source

MARPAT 131:151462
Priority Patent Number (1)
EP 1998-101902
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19980204
Priority Application Information

| | | |
|---|---|---|
| EP 1998-101902 | A | 19980204 |

Patent Number (1)
WO 9940655
Kind Code (1)
A1
Patent Publication Date (1)
19990812
Application Number (1)
WO 1999-EP441
Application Date (1)
19990123
Designated States (1)
**W:** CN, JP, KR, US **RW:** AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
Patent Information

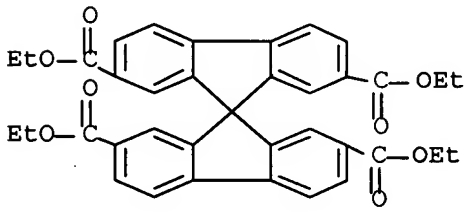
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9940655 | A1 | 19990812 | WO 1999-EP441 | 19990123 |

Family Accession Number Count
1
Language
English
Document Type
Patent
Source
PCT Int. Appl., 42 pp. CODEN: PIXXD2
Patent Assignee/Corporate Source
Aventis Research and Technologies GmbH and Co. KG, Germany
Title
Use of spiro compounds as laser dyes
Document Number
131:151462
Accession Number
1999:511350 CAPLUS Full Text
Graphics
For diagram(s), see printed CA Issue.
Author/Inventor
Kreuder, Willi; Yu, Nu; Salbeck, Josef

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarboxylic acid, tetraethyl ester (9CI) (CA INDEX NAME)
CAS Registry Number®
189938-84-9 CAPLUS
Hit Structure

CAS Registry Number
189938-84-9 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarboxylic acid, tetraethyl ester (9CI) (CA INDEX NAME)



Controlled or Index Terms
189938-84-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(spiro compds. as active materials for nonlinear optics and devices employing the compds.)

Abstract
The use in nonlinear optical devices is described spiro compds. described by the general formula I and conjugated polymers described by the general formula II (ψ = Sn, Ge, Si, or C; K1 and K2 = independently selected conjugated systems; D, E, F, and G = independently selected optionally substituted cycloalkyl groups, -CR1R2-, -O-, -S-, or -NR3- groups; U = -CR4:CR5- or a bond; V = -CR4:CR5-, -O-, -S-, -SiR1R2-, -NR3-, -SO2-, -SO-, and -CO-; R1 and R2 = a C1-20 alkyl or H, or form an optionally substituted cycloalkyl ring; R3 = a C1-20 alkyl or H; R4 and R5 can have the same meanings as R1-3 or can be F or CF3; A = H or a C1-20 alkyl group which may contain a heteroatom; T = -CR1R2-, -O-, -S-, -NR3-, -CH:N-, -CA:CA-, -CH:CF-, or -CF:CF-; K,L,M, and Q are independently selected conjugated electron systems containing hydrocarbon residues; and m and n are 0, 1, 2, or 3). Devices employing the compds., including Mach-Zehnder interferometers and optical couplers, are also described.

Other Source
MARPAT 126:349542
Priority Patent Number (1)
DE 1995-19537969
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19951012
Priority Application Information

| | | |
|---|---|---|
| DE 1995-19537969 | A | 19951012 |

Patent Number (1)
EP 768563
Kind Code (1)
A1
Patent Publication Date (1)
19970416
Application Number (1)
EP 1996-116058
Application Date (1)
19961008
Designated States (1)
R: DE, FR, GB
Patent Information

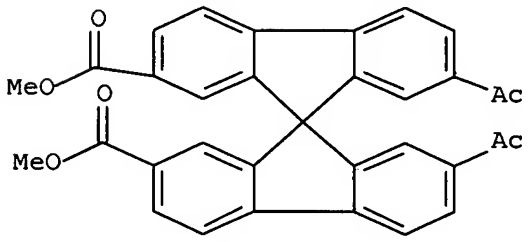
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 768563 | A1 | 19970416 | EP 1996-116058 | 19961008 |

Family Accession Number Count
1
Language
German
Document Type
Patent
Source
Eur. Pat. Appl., 40 pp. CODEN: EPXXDW
Patent Assignee/Corporate Source
Hoechst A.-G., Germany
Title
Use of spiro compounds as active materials for nonlinear optics and devices employing the compounds
Document Number
126:349542
Accession Number
1997:374631 CAPLUS Full Text
Graphics
For diagram(s), see printed CA Issue.
Author/Inventor
Lupo, Donald; Salbeck, Josef

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-diacetyl-, dimethyl ester, (R)- (9CI) (CA INDEX NAME)
CAS Registry Number®
192438-37-2 CAPLUS
Publisher
Verlag Helvetica Chimica Acta
Hit Structure

CAS Registry Number
192438-37-2 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-diacetyl-, dimethyl ester, (R)- (9CI) (CA INDEX NAME)




Controlled or Index Terms
192438-37-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) ; RACT (Reactant or reagent)
(preparation of spirobifluorene as chiral mol. cleft for mol. recognition and chromatog. resolution)

Abstract

An optically active mol. cleft incorporating a 9,9'-spirobi[9H-fluorene] spacer and 2 N-(5,7-dimethyl-1,8-naphthyridin-2-yl)carboxamide [CONH(naphthyr)] moieties as H-bonding sites was covalently bound to SiO2 to provide the new chiral stationary phase (CSP) (R)-I. Previous solution-binding studies in CDCl3 had shown that the anchored mol. cleft was capable of complexing optically active dicarboxylates with differences in free energy of the formed diastereomeric complexes $\Delta(\Delta G0)$ = 0.5-1.6 kcal mol-1 (T = 300 K). The resolution of racemic dicarboxylates, that are bound with a high degree of enantioselectivity in the liquid phase, was now achieved by HPLC on (R)-I. The order of enantiomer solution was as predicted from the solution studies, and the separation factor $\alpha$ was 1.18-1.24. A series of 1,1'-binaphthalene-2,2'-diols was also resolved on the new CSP, in some cases with baseline separation The order of enantiomer elution under normal-phase chromatog. conditions was rationalized by computer modeling of the association between the solute enantiomers and the immobilized mol. cleft. HPLC sepns. with eluents of different polarity suggested that the attractive interactions between solute and immobilized chiral selector are a combination of H-bonding, which prevails in apolar eluents, and aromatic $\pi$-$\pi$ stacking, which dominates in polar eluents.

Language

English

Document Type

Journal

Source

Helvetica Chimica Acta (1997 ), 80(3), 897-911 CODEN: HCACAV; ISSN: 0018-019X

Cleaned CS

Laboratorium Organische Chemie, Eidgenossische Technische Hochschule, Zurich, CH-8092, Switz.

Patent Assignee/Corporate Source

Laboratorium Organische Chemie, Eidgenossische Technische Hochschule, Zurich, CH-8092, Switz.

Title

Molecular recognition and enantiomer separations on a novel chiral stationary phase based on a 9,9'-spirobi[9H-fluorene]-derived molecular cleft

Document Number

127:108864

Accession Number

1997:366213 CAPLUS Full Text

Graphics

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Author/Inventor

Cuntze, Jens; Diederich, Francois

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)

9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarboxylic acid (CA INDEX NAME)

CAS Registry Number®

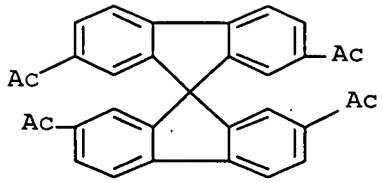
73100-44-4 CAPLUS

171408-78-9 CAPLUS

Hit Structure

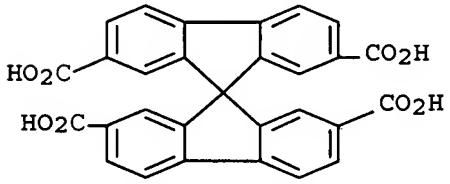
CAS Registry Number
73100-44-4 CAPLUS

Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)




CAS Registry Number
171408-78-9 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarboxylic acid (CA INDEX NAME)




Controlled or Index Terms

73100-44-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(spiro compds. and their use as electroluminescent materials)

171408-78-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(spiro compds. and their use as electroluminescent materials)

Abstract

The use of spiro compds. comprising 2 independently selected conjugated systems joined at a C atom having 2 bonds to each of the conjugated systems as electroluminescent materials is described. 9,9'-Spirobifluorene derivs. are particularly preferred. Electroluminescent devices employing the compds. are also described.

Other Source
MARPAT 124:18003
Priority Patent Number (1)
DE 1994-4411969
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19940407
Priority Application Information

| | | |
|---|---|---|
| DE 1994-4411969 | A | 19940407 |

Patent Number (1)
EP 676461
Kind Code (1)
A2
Patent Publication Date (1)
19951011
Application Number (1)

EP 1995-104475
Application Date (1)
19950327
Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 676461 | A2 | 19951011 | EP 1995-104475 | 19950327 |

Family Accession Number Count
1
Language
German
Document Type
Patent
Source
Eur. Pat. Appl., 51 pp. CODEN: EPXXDW
Patent Assignee/Corporate Source
Hoechst A.-G., Germany
Title
Spiro compounds and their use as electroluminescent materials
Document Number
124:18003
Accession Number
1995:982387 CAPLUS Full Text
Author/Inventor
Lupo, Donald; Salbeck, Josef; Schenk, Hermann; Stehlin, Thomas; Stern, Roland; Wolf, Arno; Kreuder, Willi

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (S)-N,N'-bis(6-methyl-2-pyridinyl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (R)-N,N'-bis(6-methyl-2-pyridinyl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (S)-N,N'-bis(5,7-dimethyl-1,8-naphthyridin-2-yl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (R)-N,N'-bis(5,7-dimethyl-1,8-naphthyridin-2-yl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)- (9CI) (CA INDEX NAME)
CAS Registry Number®
143957-65-7 CAPLUS
144017-09-4 CAPLUS
163860-98-8 CAPLUS
163894-92-6 CAPLUS
143957-64-6 CAPLUS
Publisher
Verlag Helvetica Chimica Acta
Hit Structure

CAS Registry Number
143957-65-7 CAPLUS

Chemical or Trade Name

9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (S)-N,N'-bis(6-methyl-2-pyridinyl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

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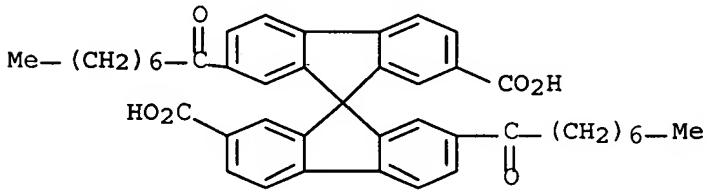
CRN 143957-64-6
CMF C43 H44 O6



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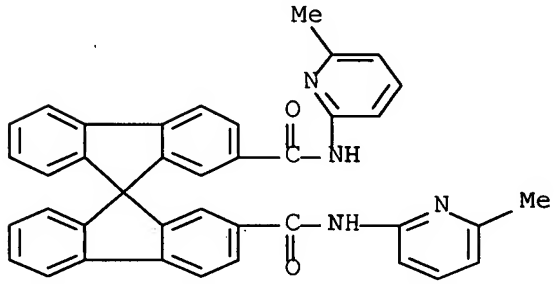
2

CRN 138200-84-7
CMF C39 H28 N4 O2



CAS Registry Number
144017-09-4 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (R)-N,N'-bis(6-methyl-2-pyridinyl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

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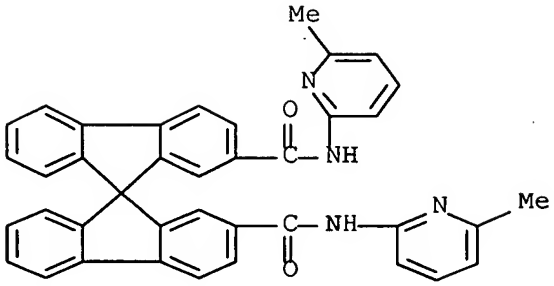

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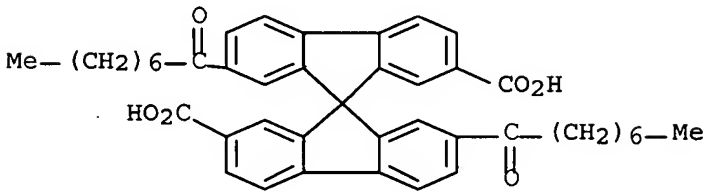

CAS Registry Number
163860-98-8 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (S)-N,N'-bis(5,7-dimethyl-1,8-naphthyridin-2-yl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

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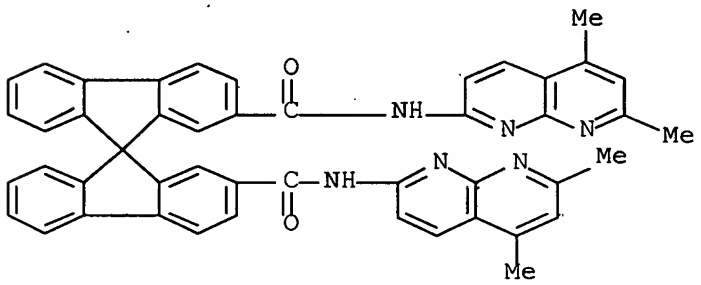
CRN 163860-97-7
CMF C47 H34 N6 O2



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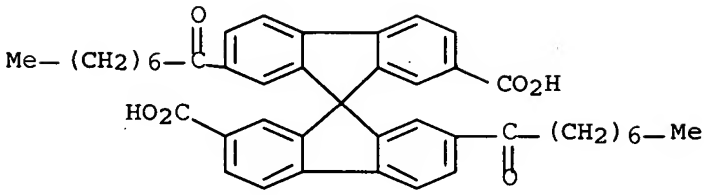
CRN 143957-64-6
CMF C43 H44 O6



CAS Registry Number
163894-92-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)-, compd. with (R)-N,N'-bis(5,7-dimethyl-1,8-naphthyridin-2-yl)-9,9'-spirobi[9H-fluorene]-2,2'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

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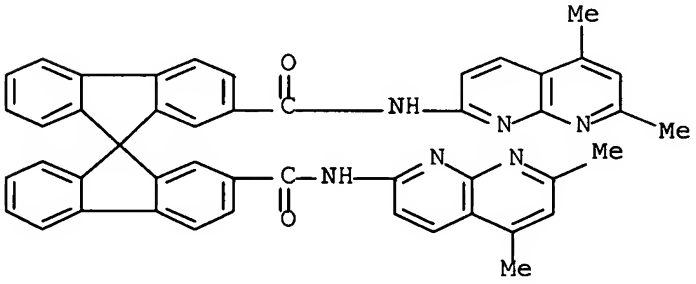
CRN 163894-60-8
CMF C47 H34 N6 O2



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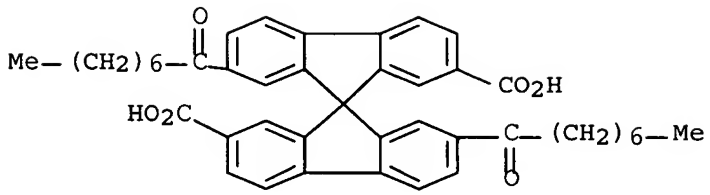
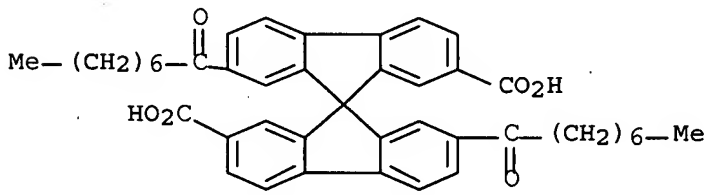


CAS Registry Number
143957-64-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)- (9CI) (CA INDEX NAME)



Controlled or Index Terms

143957-65-7P 144017-09-4P 163860-98-8P
163894-92-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(mol. clefts derived from spirobifluorene for enantioselective complexation of pyranosides and dicarboxylic acids)
143957-64-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) ; RACT (Reactant or reagent)
(mol. clefts derived from spirobifluorene for enantioselective complexation of pyranosides and dicarboxylic acids)

Abstract

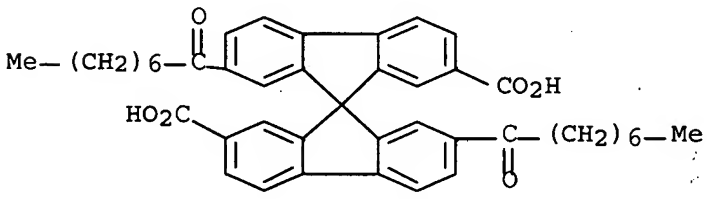
The mol. clefts (R)- and (S)-I were prepared via the bis(N-succinimidyl esters) of (R)- and (S)-9,9'-spirobi-9H-fluorene-2,2'-dicarboxylic acid. A spirobifluorene cleft with two different H-bonding sites (II) was also prepared Binding studies with (R)- and (S)-I and optically active dicarboxylic acids in CDCl3 exhibited differences in free energy of the diastereoisomeric complexes formed; Δ(ΔG0) was 0.5-1.6 kcal mol-1 (300 K). Similar enantioselectivities were observed with the spirobifluorene clefts (R)- and (S)-III. The thermodn. quantities ΔH0 and ΔS0 for the recognition processes with (R)- and (S)-III were determined by variable-temperature 1H-NMR titrns. and compared to those with (R)- and (S)-IV, containing a conformationally more flexible 1,1'-binaphthyl moiety. All association processes showed high enthalpic driving forces which are partially compensated for by unfavorable changes in entropy. Pyranosides bind to the optically active clefts III and I in CDCl3 with -ΔG0 = 3.0-4.3 kcal mol-1. Diastereoisomeric selectivities up to 1.2 kcal mol-1 and enantioselectivities up to 0.4 kcal mol-1 were observed Cleft II and N-(5,7-dimethyl-1,8-naphthyridin-2- yl)acetamide complexed pyranosides, e.g., V, as effectively as I, indicating that only one CONH(naphthyl) site in I assocs. strongly with the sugar derivs. Based on the x-ray crystal structure of I, a computer model for the complex between (S)-I and pyranoside V was constructed. Mol.-dynamics simulations showed that differential geometric constraints are at the origin of the high enantioselectivity in the complexation of dicarboxylic acid (S)-VI by (R)- and (S)-III and (R)- and (S)-I.

Other Source
CASREACT 123:32595
Language
English
Document Type
Journal
Source
Helvetica Chimica Acta (1995 ), 78(2), 367-90 CODEN: HCACAV; ISSN: 0018-019X
Cleaned CS
Lab. Org. Chem., Eidgenoessischen Tech. Hochschule, Zurich, CH-8092, Switz.
Patent Assignee/Corporate Source
Lab. Org. Chem., Eidgenoessischen Tech. Hochschule, Zurich, CH-8092, Switz.
Title
Molecular clefts derived from 9,9'-spirobi-9H-fluorene for enantioselective complexation of pyranosides and dicarboxylic acids
Document Number
123:32595
Accession Number
1995:517657 CAPLUS Full Text
Graphics
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Author/Inventor
Cuntze, Jens; Owens, Linda; Alcazar, Victoria; Seiler, Paul; Diederich, Francois

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)- (9CI) (CA INDEX NAME)
CAS Registry Number®
143957-64-6 CAPLUS
Hit Structure

CAS Registry Number
143957-64-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarboxylic acid, 7,7'-bis(1-oxooctyl)-, (S)- (9CI) (CA INDEX NAME)




Controlled or Index Terms
143957-64-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and enantioselective complexation of, in spirobifluorene clefts)
Abstract
The 9,9'-spirobifluorene receptors (R)- and (S)-I complex chiral dicarboxylic acids enantioselectively in

chloroform via hydrogen bonding. A very large difference in stability, Δ(ΔG°) = 1.8 kcal mol-1 was measured for the diastereomeric complexes formed by (R)- and (S)-I with a chiral 2,2'-dicarboxy-9,9'-spirobifluorene. In contrast, 1,1'-binaphthyl receptors with similar functionality in the major groove do not show significant enantioselectivity in the complexation of chiral dicarboxylic acids.

Language
English

Document Type
Journal

Source
Anales de Quimica (1993 ), 89(1), 89-92 CODEN: ANQUEX; ISSN: 1130-2283

Cleaned CS
Lab. Org. Chem., ETH Zent., Zurich, CH-8092, Switz.

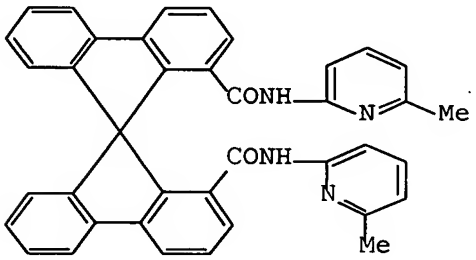
Patent Assignee/Corporate Source
Lab. Org. Chem., ETH Zent., Zurich, CH-8092, Switz.

Title
Enantioselective complexation of chiral dicarboxylic acids in 9,9'-spirobifluorene clefts

Document Number
119:159608

Accession Number
1993:559608 CAPLUS Full Text

Graphics




I

Author/Inventor
Alcazar, Victoria; Diederich, Francois

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

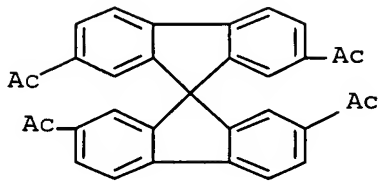
Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)

CAS Registry Number®
73100-44-4 CAPLUS

Hit Structure

CAS Registry Number
73100-44-4 CAPLUS

Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)




Controlled or Index Terms

73100-44-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

Abstract

From the spirobifluorene I, 12 chiral polyethers II (X = bond, CH2; n = integer 1-5) and III [X1 = bond, (OCH2CH2)m, m = 1,2) were prepared The absolute configuration of the polyethers was determined by chemical correlation with vespirenes, by CD, and by x-ray anal. The CD of II (X = CH2) depends on the size of the macrocycle and indicates that the fluorene chromophores of II (X = CH2, n = 1,2) with 13- and 16-membered rings resp. deviate considerably from orthogonality.

Language

German

Document Type

Journal

Source

Helvetica Chimica Acta (1979 ), 62(7), 2285-302 CODEN: HCACAV; ISSN: 0018-019X

Cleaned CS

Lab. Org. Chem., ETH, Zurich, Switz.

Patent Assignee/Corporate Source

Lab. Org. Chem., ETH, Zurich, Switz.

Title

Chiral 2,2'-polyoxaalkano-9,9'-spirobifluorenes

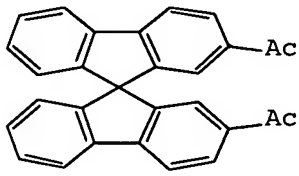
Document Number

92:146733

Accession Number

1980:146733 CAPLUS Full Text

Graphics

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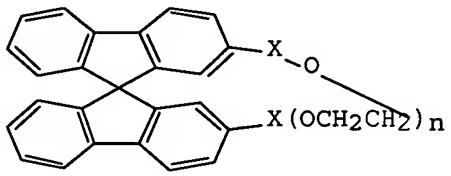


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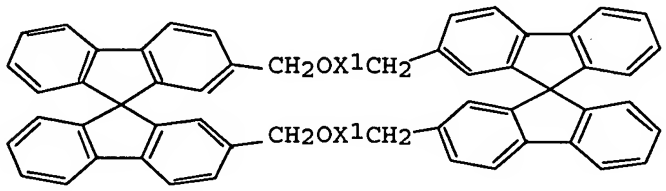


III

Author/Inventor

Prelog, Vladimir; Bedekovic, Davor

=>

---Logging off of STN---

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Executing the logoff script...

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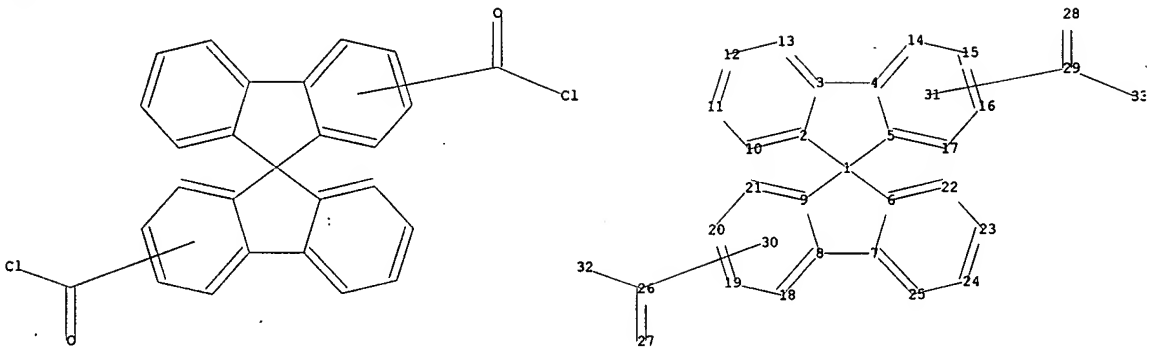



chain nodes :

26 27 28 29 32 33

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

chain bonds :

26-27 26-32 28-29 29-33

ring bonds :

1-2 1-5 1-6 1-9 2-3 2-10 3-4 3-13 4-5 4-14 5-17 6-7 6-22 7-8 7-25 8-9 8-18 9-21 10-11 11-12 12-13 14-15 15-16 16-17 18-19 19-20 20-21 22-23 23-24 24-25

exact/norm bonds :

1-2 1-5 1-6 1-9 3-4 7-8 26-27 28-29

exact bonds :

26-32 29-33

normalized bonds :

2-3 2-10 3-13 4-5 4-14 5-17 6-7 6-22 7-25 8-9 8-18 9-21 10-11 11-12 12-13 14-15 15-16 16-17 18-19 19-20 20-21 22-23 23-24 24-25

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:CLASS 27:CLASS 28:CLASS 29:CLASS

30:Atom 31:Atom 32:CLASS 33:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR
/ Structure 22 in file .gra /

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full
FULL SEARCH INITIATED 08:57:15 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 87 TO ITERATE

100.0% PROCESSED 87 ITERATIONS 5 ANSWERS
SEARCH TIME: 00.00.01

L2 5 SEA SSS FUL L1

=> d l5
L5 NOT FOUND
The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> d l2

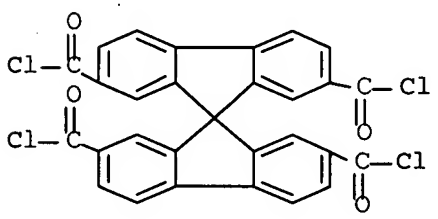
L2 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2007 ACS on STN
Reference(s)
IN FILE CA (1907 TO DATE) 2
IN FILE CAPLUS (1907 TO DATE) 2
STN Files
STN Files: CA, CAPLUS, CASREACT, USPATFULL
Source of Registration
CA
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl chloride (CA INDEX NAME)
OTHER CA INDEX NAMES:
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl tetrachloride (9CI)
Entry Date
Entered STN: 05 Mar 2004
CAS Registry Number®
658710-65-7 REGISTRY
Hit Structure

CAS Registry Number
658710-65-7 REGISTRY

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl chloride (CA INDEX NAME)

OTHER CA INDEX NAMES:

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl tetrachloride (9CI)



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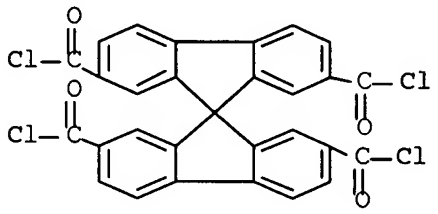

Molecular Formula
C29 H12 Cl4 O4

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L3            8 L2

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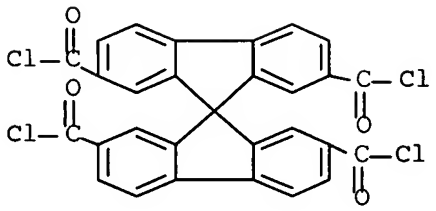
L3 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl chloride (CA INDEX NAME)
CAS Registry Number®
658710-65-7 CAPLUS
Publisher
Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic
Reference Count
42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
Hit Structure

CAS Registry Number
658710-65-7 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl chloride (CA INDEX

NAME)



Controlled or Index Terms

658710-65-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 9,9'-spirobifluorene-2,2',7,7'-tetracarboxylic acid and 9,9'-spirobifluorene-2,2',7,7'-tetracarboxamide)

Abstract

The title tetrasubstituted spirobifluorenes, i.e., 9,9'-spirobi[9H- fluorene]-2,2',7,7'-tetracarboxylic acid and 9,9'-spirobi[9H-fluorene]- 2,2',7,7'-tetracarboxamide, have been designed to serve as convenient achiral tectons for self-assembly of 2D layers with large chiral pores. The underlying stereochem. concept has been confirmed by the results of crystallog. anal. of tetraacid. Self-assembly of the isosteric tetraamide led to markedly different results.

Other Source

CASREACT 146:295583

Language

English

Document Type

Journal

Source

Collection of Czechoslovak Chemical Communications (2006), 71(2), 139-154 CODEN: CCCCAK; ISSN: 0010-0765

Cleaned CS

Institute of Organic Chemistry and Biochemistry

Patent Assignee/Corporate Source

Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Prague, 166 10/6, Czech Rep.

Title

Synthesis and self-assembly of 9,9'-spirobifluorene- 2,2',7,7'-tetracarboxylic acid and its tetraamide. Non-catenated formation of achiral grid layers with large chiral pores

Document Number

146:295583

Accession Number

2006:314305 CAPLUS Full Text

Author/Inventor

Holy, Petr; Havlik, Martin; Tichy, Milos; Zavada, Jiri; Cisarova, Ivana

L3 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)

CAS Registry Number®

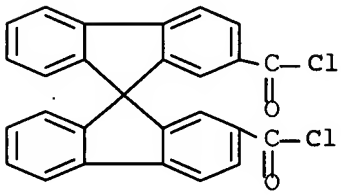
67665-11-6 CAPLUS

Hit Structure

CAS Registry Number

67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)



Controlled or Index Terms
67665-11-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(emitting mixts. of matrix materials and organometallic semiconductors and their use and electronic components containing mixts.)

Abstract
Mixts. are described which comprise a matrix material having a structural unit of the form C:Q (Q = O, S, Se, or N and is possessed of a nonbonded electron pair) and ≥1 emitting material which emits light when excited and which includes ≥1 element having an atomic number >20. The matrix material may comprise a compound including spirobifluorene derivative units (including spirobifluorene compds with substituted nitrogen heteroatoms replacing the ring carbons), and specific suitable compds. are also described. The matrix material may also comprise a polymer or dendrimer. The emitting material is preferably a complex of Mo, W, Rh, Ru, Os, Re, Ir, Pd, Pt, Ag, Au, or Eu. Organic electronic components (e.g., organic light-emitting devices, organic solar cells, organic FETs, organic integrated circuits; organic thin-film transistors, and organic laser diodes) are also described which employ the mixts.

Priority Patent Number (1)
DE 2003-10317556
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
20030415
Priority Application Information

| | | |
|---|---|---|
| DE 2003-10317556 | A | 20030415 |

Patent Number (1)
WO 2004093207
Kind Code (1)
A2
Patent Publication Date (1)
20041028
Application Number (1)
WO 2004-EP3861
Application Date (1)
20040413
Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004093207 | A2 | 20041028 | WO 2004-EP3861 | 20040413 |

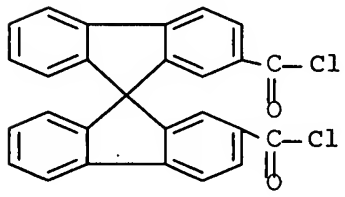
Family Accession Number Count
1
Language

German
Document Type
Patent
Source
PCT Int. Appl., 50 pp. CODEN: PIXXD2
Patent Assignee/Corporate Source
Covion Organic Semiconductors G.m.b.H., Germany
Title
Mixtures of matrix materials and organic semiconductors capable of emission, use of the same and electronic components containing the mixtures
Document Number
141:386129
Accession Number
2004:906077 CAPLUS Full Text
Author/Inventor
Gerhard, Anja; Vestweber, Horst; Stoessel, Philipp; Heun, Susanne; Spreitzer, Hubert

L3 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2',7-tricarbonyl trichloride (9CI) (CA INDEX NAME)
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl chloride (CA INDEX NAME)
CAS Registry Number®
67665-11-6 CAPLUS
658710-63-5 CAPLUS
658710-65-7 CAPLUS
Hit Structure

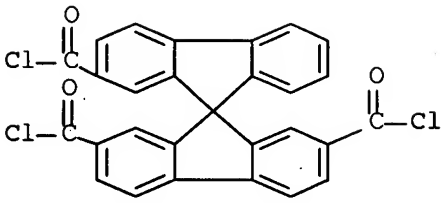
CAS Registry Number
67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)



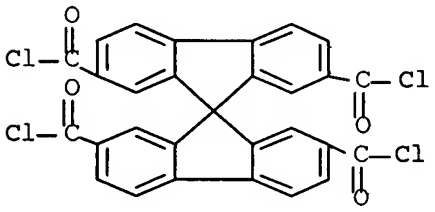

CAS Registry Number
658710-63-5 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7-tricarbonyl trichloride (9CI) (CA INDEX NAME)



CAS Registry Number
658710-65-7 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2',7,7'-tetracarbonyl chloride (CA INDEX NAME)



Controlled or Index Terms

67665-11-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in spirobifluorene derivative preparation)

658710-63-5 658710-65-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(spirobifluorene derivs. and radical anions and their preparation and use)

Abstract

Spirobifluorene derivs. and the corresponding radical anions are claimed which are described by the general formula I (K, L, M, and N = independently selected H or A-C:O, with the proviso that the selection is never K = L = M = N = H; A = an aromatic group substituted with ≥1 radical R; and R = H or aliphatic). Methods for preparing the derivs. are described which entail reacting a nonfunctionalized spirobifluorene with A-C:OCl in the presence of a Lewis acid or the the reaction of a spirobifluorene functionalized as an acid chloride with A-H. The specific compds. 9,9'-spirobi(9H-fluorene)-2-carbonyl chloride, 9,9'-spirobi(9H-fluorene)-2,2',7-tricarbonyl trichloride, and 9,9'-Spirobi(9H-fluorene)-2,2',7-7'-tetracarbonyl tetrachloride are also claimed. Electrochem. methods for preparing the radical anions corresponding to the spirobifluorene derivs. are also described. The use of the compds., in electronic devices and electronic devices, in particular systems for electroluminescence, mol.-based computational systems, organic LEDs, mol. switching components, components for nonlinear optics, field-effect transistors, and semiconductors with neg. differential resistance, are also described (no data).

Other Source
MARPAT 140:181223

Priority Patent Number (1)
IT 2002-RM411

Priority Kind Code (1)
A

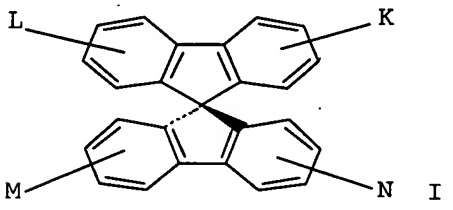
Priority Patent Publication Date (1)
20020801
Priority Application Information

| | | |
|---|---|---|
| IT 2002-RM411 | A | 20020801 |

Patent Number (1)
WO 2004013080
Kind Code (1)
A1
Patent Publication Date (1)
20040212
Application Number (1)
WO 2003-EP8465
Application Date (1)
20030731
Designated States (1)
**W:** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW **RW:** GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004013080 | A1 | 20040212 | WO 2003-EP8465 | 20030731 |

Family Accession Number Count
1
Language
English
Document Type
Patent
Source
PCT Int. Appl., 31 pp. CODEN: PIXXD2
Patent Assignee/Corporate Source
Universita Degli Studi Di Roma 'la Sapienza', Italy; Bagala' Rampazzo, Liliana
Title
Spirobifluorene derivatives, their preparation and uses thereof
Document Number
140:181223
Accession Number
2004:120815 CAPLUS Full Text
Graphics




I

Author/Inventor
Bagala', Rampazzo Liliana; Fioravanti, Giulia; Mattiello, Leonardo

L3 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)

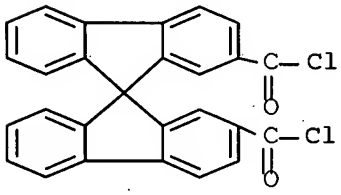
CAS Registry Number®

67665-11-6 CAPLUS

Hit Structure

CAS Registry Number
67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)




Controlled or Index Terms

67665-11-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(amorphous polyarylenes as materials for blue-emitting electroluminescent device)

Abstract

Title compds., which are vacuum deposited in manufacture of LED, are represented as general formula I [R1, R2 = H, C≤10 alkyl, alkyloxy, alkylamino; R3 = all-4-C6H4C6H4Ph (substituted with similar groups as in R1, R2); n1, n2 = 0-5] or their analogs. Thus, I (R1 = R2 = H, R3 = 4-BrC6H4) was reacted with 4-(HO)2BC6H4Ph to give 65% polyarylene, which showed emission peaks at 376 and 396 nm. A LED with high electroluminescent efficacy was manufactured using the polyarylene.

Other Source

MARPAT 137:343704

Priority Patent Number (1)

JP 2001-122788

Priority Patent Publication Date (1)

20010420

Priority Application Information

JP 2001-122788

Patent Number (1)

JP 2002316955

Kind Code (1)

A

Patent Publication Date (1)

20021031

Application Number (1)

JP 2001-122788

Application Date (1)

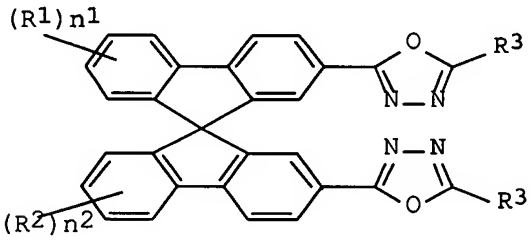
20010420

Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2002316955 | A | 20021031 | JP 2001-122788 | 20010420 |

Family Accession Number Count
1
Language
Japanese
Document Type
Patent
Source
Jpn. Kokai Tokkyo Koho, 20 pp. CODEN: JKXXAF
Patent Assignee/Corporate Source
Sony Corp., Japan
Title
Amorphous polyarylenes as materials for blue-emitting electroluminescent device (LED)
Document Number
137:343704
Accession Number
2002:827438 CAPLUS Full Text
Graphics



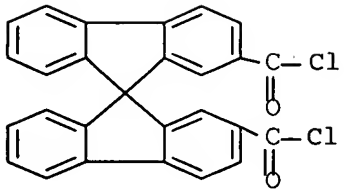

I

Author/Inventor
Takada, Kazunori; Shibanuma, Tetsuo; Tamura, Shinichiro

L3 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)
CAS Registry Number®
67665-11-6 CAPLUS
Reference Count
6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
Hit Structure

CAS Registry Number
67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)



Controlled or Index Terms

67665-11-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(use of spiro compds. as laser dyes)

Abstract

The use of spiro compds. described by the general formula I (K1 and K2 = independently selected conjugated systems), especially spirobifluorene derivs., as laser dyes is described.

Other Source

MARPAT 131:151462

Priority Patent Number (1)

EP 1998-101902

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19980204

Priority Application Information

| | | |
|---|---|---|
| EP 1998-101902 | A | 19980204 |

Patent Number (1)

WO 9940655

Kind Code (1)

A1

Patent Publication Date (1)

19990812

Application Number (1)

WO 1999-EP441

Application Date (1)

19990123

Designated States (1)

**W:** CN, JP, KR, US **RW:** AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9940655 | A1 | 19990812 | WO 1999-EP441 | 19990123 |

Family Accession Number Count

1

Language

English

Document Type

Patent

Source

PCT Int. Appl., 42 pp. CODEN: PIXXD2

Patent Assignee/Corporate Source

Aventis Research and Technologies GmbH and Co. KG, Germany

Title

Use of spiro compounds as laser dyes

Document Number

131:151462

Accession Number

1999:511350 CAPLUS Full Text

Graphics

For diagram(s), see printed CA Issue.

Author/Inventor

Kreuder, Willi; Yu, Nu; Salbeck, Josef

L3 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)

CAS Registry Number®

67665-11-6 CAPLUS

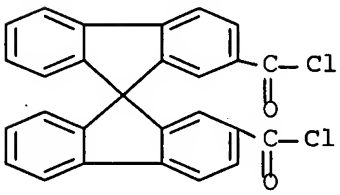
Reference Count

2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)




Controlled or Index Terms

67665-11-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; aromatic spiro compds. as heat-resistant optical brightening agents)

Abstract

An optical brightening agent contains ≥1 spiro compds. in which 2 identical or different conjugated systems are joined at a C, Si, Ge, Sn, or Pb spiro atom. These whitening agents are characterized by high fluorescence quantum yields and high temperature resistance, and can be used to enhance the efficiency of solar cells. Thus, the Grignard reagent from 2-bromobiphenyl (prepared with ultrasonically activated Mg shavings) reacted with 9-fluorenone to give 9-(2-biphenylyl)-9-fluorenol, which was cyclized in the presence of acid to form 9,9'-spirobifluorene (I) in 80% yield. Bromination of I in $CH_2Cl_2$ at reflux under ultrasonic irradiation in the presence of $FeCl_3$ and in the absence of light gave 77% 2,2',4,4',7,7'-hexabromo-9,9'-spirobifluorene, which reacted with biphenyl-4-boronic acid in the presence of $Pd(PPh_3)_4$ to produce 2,2',4,4',7,7'-hexakis(4-biphenylyl)-9,9'-spirobifluorene (II), absorption λmax 363 nm and emission λmax 392 and 413 nm in 80% yield. Treatment of a polyester fabric with an aqueous dispersion of II containing ethoxylated p-tert-octylphenol, drying at 100°, and heat-treating briefly at 220° improved the fabric whiteness.

Other Source

MARPAT 129:5625

Priority Patent Number (1)

DE 1996-19645063
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19961031
Priority Application Information

| | | |
|---|---|---|
| DE 1996-19645063 | A | 19961031 |

Patent Number (1)
WO 9818996
Kind Code (1)
A1
Patent Publication Date (1)
19980507
Application Number (1)
WO 1997-EP5888
Application Date (1)
19971024
Designated States (1)
**W:** AU, CN, JP, US **RW:** AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9818996 | A1 | 19980507 | WO 1997-EP5888 | 19971024 |

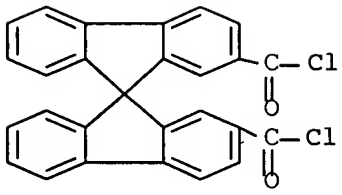
Family Accession Number Count
1
Language
German
Document Type
Patent
Source
PCT Int. Appl., 61 pp. CODEN: PIXXD2
Patent Assignee/Corporate Source
Hoechst Research & Technology Deutschland G.m.b.H. & Co. K.-G., Germany; Salbeck, Josef; Kreuder, Willi
Title
Optical brightening agents and their use
Document Number
129:5625
Accession Number
1998:293673 CAPLUS Full Text
Author/Inventor
Salbeck, Josef; Kreuder, Willi

L3 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)
CAS Registry Number®
67665-11-6 CAPLUS
Hit Structure

CAS Registry Number
67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX

NAME)



Controlled or Index Terms

67665-11-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with amino(methyl)pyridine)

Abstract

Three efficient cleft-type receptors, I-III are prepared by attachment of 2 amidopyridine units as H-bonding centers to either the 2,2'-positions of 9,9'-spirobifluorene or the 6,6'-positions of 1,1'-binaphthyl spacers. The easy availability of these compds. in short synthetic routes make them attractive complexing agents for aliphatic and aromatic dicarboxylic acids which undergo bidentate binding in CHCl3. 1H NMR binding studies show that substrates of different size can be accommodated into the clefts and form 1:1 complexes that are predominantly stabilized by multiple host-guest H-bonds. The flexible aliphatic substrates diethylmalonic, 2,2-diphenylsuccinic, glutaric, and pimelic acid form complexes with association consts. Ka ranging from 103 to 104 L mol-1. Significantly more stable complexes (Ka > 105 L mol-1) are obtained with the more rigid, preorganized substrate 5-dodecyloxyisophthalic acid.

Other Source

CASREACT 118:233206

Language

English

Document Type

Journal

Source

Israel Journal of Chemistry (1992), 32(1), 69-77 CODEN: ISJCAT; ISSN: 0021-2148

Cleaned CS

University of California

Patent Assignee/Corporate Source

Dep. Chem. Biochem., Univ. California, Los Angeles, CA, 90024-1569, USA

Title

Chiral molecular clefts for dicarboxylic acid complexation

Document Number

118:233206

Accession Number

1993:233206 CAPLUS Full Text

Graphics

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Author/Inventor

Alcazar, Victoria; Moran, Joaquin R.; Diederich, Francois

L3 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride, polymer with 1,4-diamino-9,10-anthracenedione (9CI) (CA INDEX NAME)

9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride, polymer with 1,5-diamino-9,10-anthracenedione (9CI) (CA INDEX NAME)

9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)

CAS Registry Number®
67665-12-7 CAPLUS
67665-13-8 CAPLUS
67665-11-6 CAPLUS
Hit Structure

CAS Registry Number
67665-12-7 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride, polymer with
1,4-diamino-9,10-anthracenedione (9CI) (CA INDEX NAME)

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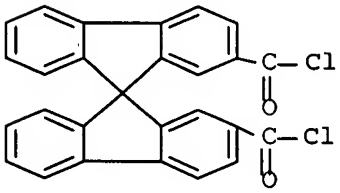


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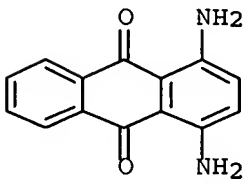
CRN 128-95-0
CMF C14 H10 N2 O2




CAS Registry Number
67665-13-8 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride, polymer with
1,5-diamino-9,10-anthracenedione (9CI) (CA INDEX NAME)

CM
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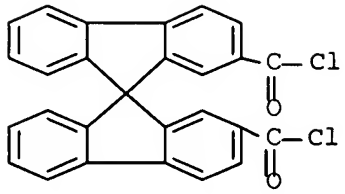

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CRN 129-44-2
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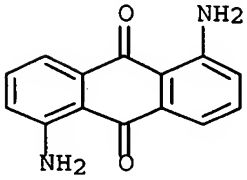
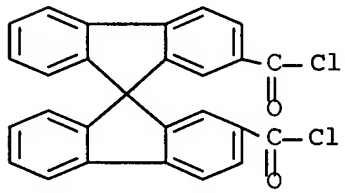


CAS Registry Number
67665-11-6 CAPLUS

Chemical or Trade Name
9,9'-Spirobi[9H-fluorene]-2,2'-dicarbonyl dichloride (9CI) (CA INDEX NAME)



Controlled or Index Terms

67665-12-7P 67665-13-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and lightfastness of)
67665-11-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with amino- or diaminoanthraquinones)

Abstract

Title dyes I (R = H acid, 2-naphthol, phenol, 3-methyl-1-phenyl-5- pyrazolone, acetoacetanilide residue) and II (R1 = anthraquinon-1-yl, 1,4- or 1,5-diaminoanthraquinone residue) were prepared by coupling tetrazotized 2,2'-diamino-9,9'-spirobifluorene [67665-45-6] with RH or by reaction of 9,9'-spirobifluorene-2,2'-dicarbonyl chloride [67665-11-6] with the appropriate aminoanthraquinone. Both I and II are high-

melting solids, and their colors closely resemble those of the corresponding nonspiro analogs (III and IV, R and R1 as defined). Higher lightfastness for I and II in comparison to III and IV was not observed even though the spiro dyes probably have more favorable crystal-packing properties and thus more tendency to aggregate; five of the eight I and II showed the same lightfastness as their nonspiro analogs, two higher lightfastness, and one lower.

Language
English

Document Type
Journal

Source
Journal of the Society of Dyers and Colourists (1978), 94(7), 306-9 CODEN: JSDCAA; ISSN: 0037-9859

Cleaned CS
University of Leeds

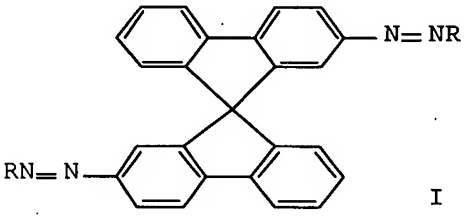
Patent Assignee/Corporate Source
Dep. Colour Chem., Univ. Leeds, Leeds, UK

Title
The synthesis and properties of dyes and pigments containing a 9,9'-spirobifluorene residue

Document Number
89:131042

Accession Number
1978:531042 CAPLUS Full Text

Graphics

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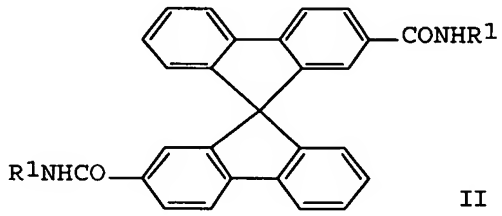


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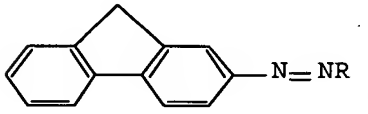
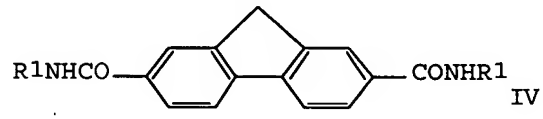



III




IV

Author/Inventor
Sutcliffe, F. K.; Shahidi, Hassan Moaven; Patterson, David

=>

---Logging off of STN---

Connection closed by remote host
END

Unable to generate the STN prompt.
Exiting the script...

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAMEN1774

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

=>

---Logging off of STN---

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Executing the logoff script...

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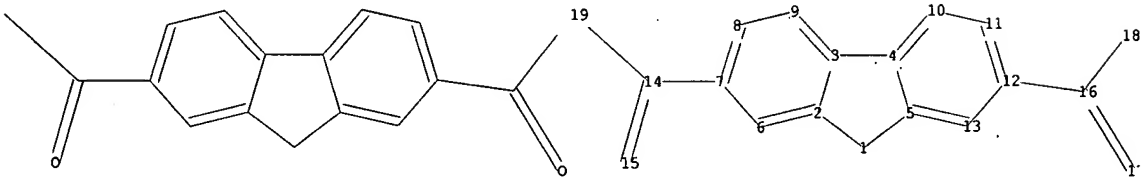


chain nodes :

14 15 16 17 18 19

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13

chain bonds :

7-14 12-16 14-15 14-19 16-17 16-18

ring bonds :

1-2 1-5 2-3 2-6 3-4 3-9 4-5 4-10 5-13 6-7 7-8 8-9 10-11 11-12 12-13

exact/norm bonds :

1-2 1-5 3-4 14-15 16-17

exact bonds :

7-14 12-16 14-19 16-18

normalized bonds :

2-3 2-6 3-9 4-5 4-10 5-13 6-7 7-8 8-9 10-11 11-12 12-13

Match level :

```
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
      12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS



L1      STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
L1              STR
/ Structure 41 in file .gra /


Structure attributes must be viewed using STN Express query preparation.


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SAMPLE SCREEN SEARCH COMPLETED -      965 TO ITERATE

100.0% PROCESSED      965 ITERATIONS                                  7 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       17437 TO    21163
PROJECTED ANSWERS:              7 TO      298

L2            7 SEA SSS SAM L1

=> s l1 sss full
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100.0% PROCESSED    19654 ITERATIONS                                202 ANSWERS
SEARCH TIME: 00.00.01

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L4          151 L3

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      ORG#)(2A)LUM!N? OR LIGHT?(2A)(EMIT? OR EMISSION?) OR EL OR E(W)L OR L(W)E(W)D
      OR OLED OR LED
        333937 LUM!N?
         73597 ELECTROLUM!N?
            55 ORGANOLUM!N?
         88041 ELECTRO
             7 ELECTROS
         88047 ELECTRO
                 (ELECTRO OR ELECTROS)
         19388 ORGANO
             3 ORGANOS
         19391 ORGANO
                 (ORGANO OR ORGANOS)
       1040119 ORG#
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       1221187 LIGHT?
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        571883 EMISSION?
         83494 LIGHT?(2A)(EMIT? OR EMISSION?)
         26273 EL
           937 ELS
         27182 EL
                 (EL OR ELS)
       2057290 E
       1592121 L
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       1592121 L
       2057290 E
       2487348 D
            29 L(W)E(W)D
          4622 OLED
          2352 OLEDS
          5820 OLED
                 (OLED OR OLEDS)
        273814 LED
          9043 LEDS
        276586 LED
                 (LED OR LEDS)
L5      674302 LUM!N? OR ELECTROLUM!N? OR ORGANOLUM!N? OR (ELECTRO OR ORGANO
               OR ORG#)(2A)LUM!N? OR LIGHT?(2A)(EMIT? OR EMISSION?) OR EL OR
               E(W)L OR L(W)E(W)D OR OLED OR LED

=> s l5 and l4
L6           22 L5 AND L4

=> d 10-22 ibib abs hitstr
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L6 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)

CAS Registry Number®

435332-95-9 CAPLUS

435332-92-6 CAPLUS

Publisher

Springer-Verlag

Reference Count

10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number

435332-95-9 CAPLUS

Chemical or Trade Name

Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

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CRN 435332-92-6
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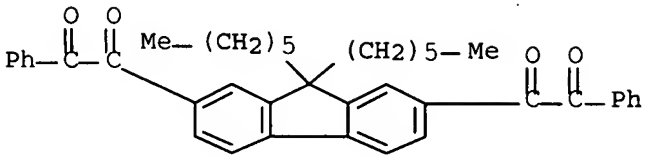

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CRN 91-95-2
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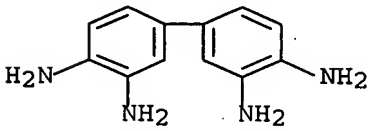
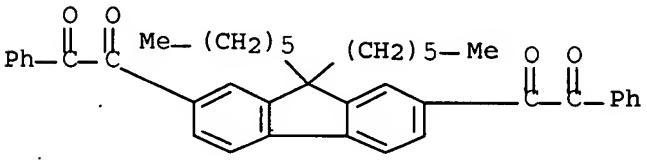


CAS Registry Number
435332-92-6 CAPLUS

Chemical or Trade Name
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)



Controlled or Index Terms

435332-95-9P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis and light -emitting properties of electron-accepting π-conjugated polyquinoxalines with fluorene unit)

435332-92-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and light -emitting properties of electron-accepting π-conjugated polyquinoxalines with fluorene unit)

Abstract

New fluorene-linked π-conjugated polyquinoxaline PFQx I and PFQx II have been synthesized and

characterized. The PFQx polymers are prepared by the polycondensation of the 2,7-bis(phenyloxoacetyl)-9,9'-di-n- hexylfluorene or 2,7-bis(4-benzil)-9,9'-di-n-hexylfluorene and 3,3'-diaminobenzidine leading to the PFQx I and PFQx II . The polycondensation is usually carried out in m-Cresol. These polymers possess relatively good solubility and thermal stability. The resulting polymers exhibit a UV-visible absorption band in the range of 397-407 nm in both chloroform solution and the film state. Upon photo-excitation around the absorption maximum wavelength, their PL spectra show a maximum peaks around at 447-467 nm. Multilayered light -emitting diode with the device structure of ITO/PEDOT/PFQx I /PVK blend(2:8)/LiF/Al gives a highest EL peak in the blue region of 460 nm. J-V curve shows a turn-on voltage of 13 V.

Language
English

Document Type
Journal

Source
Polymer Bulletin (Berlin, Germany) (2003), 50(4), 251-258 CODEN: POBUDR; ISSN: 0170-0839

Cleaned CS
Polymer Materials Laboratory, KIST, Seoul, Cheongryang, 130-650, S. Korea

Patent Assignee/Corporate Source
Polymer Materials Laboratory, KIST, Seoul, Cheongryang, 130-650, S. Korea

Title
New electron-accepting π-conjugated polyquinoxalines with fluorene unit: synthesis and light -emitting properties

Document Number
139:365327

Accession Number
2003:534905 CAPLUS Full Text

Author/Inventor
Jung, S. H.; Suh, D. H.; Cho, H. N.

L6 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name
Ethanone, 1,1'-(9H-fluorene-2,7-diyl)bis-, polymer with [(phenylimino)bis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

CAS Registry Number®
575487-84-2 CAPLUS

Publisher
Elsevier Science B.V.

Reference Count
7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
575487-84-2 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9H-fluorene-2,7-diyl)bis-, polymer with [(phenylimino)bis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

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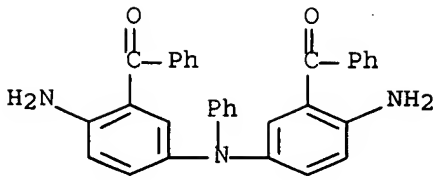
CRN 575487-83-1
CMF C32 H25 N3 O2



CM
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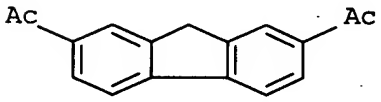
CRN 961-27-3
CMF C17 H14 O2



Controlled or Index Terms
575487-84-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinolines containing phenylamine moiety)

Abstract
Two novel conjugated polyquinolines (F-PA-PQ and Cz-PA-PQ) with the phenylamine moiety as hole-transporting segment were synthesized. The resulting polyquinolines exhibited excellent thermal stabilities (Tg >200°), good solubility in common organic solvents and film-forming properties. Their optical absorption, photoluminescence, electroluminescence and sensory properties were studied.

Language
English
Document Type
Journal
Source
Synthetic Metals (2003), 137(1-3), 1115-1116 CODEN: SYMEDZ; ISSN: 0379-6779
Cleaned CS
Chinese Academy of Sciences
Patent Assignee/Corporate Source
State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China
Title
Novel polyquinolines containing phenylamine moiety
Document Number
139:165228
Accession Number
2003:417078 CAPLUS Full Text
Author/Inventor
Tong, H.; Sun, H. H.; Xie, Z. Y.; Wang, L. X.; Jing, X. B.; Wang, F. S.

L6 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)
CAS Registry Number®

435332-92-6 CAPLUS
532384-91-1 CAPLUS

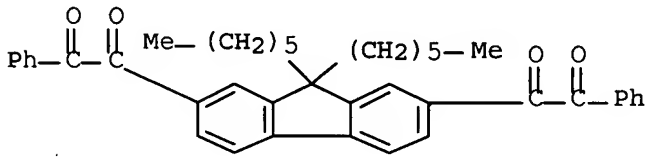
Reference Count

36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

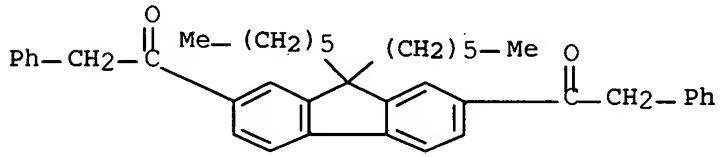
CAS Registry Number
435332-92-6 CAPLUS

Chemical or Trade Name
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)




CAS Registry Number
532384-91-1 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)




Controlled or Index Terms

435332-92-6P 532384-91-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; fluorene compound, polymers thereof having a polyphenylene group, and electroluminescent elements comprising the same)

Abstract

A fluorene compound and polymers thereof having a polyphenylene group, and EL element comprising the same, can be prepared through a Diels-Alder reaction of a compound having one or more cyclopentadienone group and a compound having one or more acetylene group and can be used as a core material for organic and polymeric EL element and/or other optical devices. 2,7-Bis(2,4,5-triphenylcyclopentadienon-3-yl)-9,9'-di-n- hexylfluorene was prepared and polymerized with 2,7-diethynyl-9,9'-di-n- hexylfluorene.

Priority Patent Number (1)
KR 2001-66330

Priority Kind Code (1)
A
Priority Patent Publication Date (1)
20011026
Priority Application Information

| | | |
|---|---|---|
| KR 2001-66330 | A | 20011026 |

Patent Number (1)
US 2003099838
Kind Code (1)
A1
Patent Publication Date (1)
20030529
Application Number (1)
US 2002-271318
Application Date (1)
20021014
Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2003099838 | A1 | 20030529 | US 2002-271318 | 20021014 |

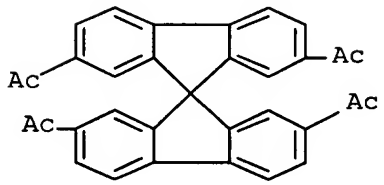
Family Accession Number Count
1
Language
English
Document Type
Patent
Source
U.S. Pat. Appl. Publ., 37 pp. CODEN: USXXCO
Patent Assignee/Corporate Source
Korea Institute of Science and Technology, S. Korea
Title
Fluorene compound, polymers thereof having a polyphenylene group, and electroluminescent elements comprising the same
Document Number
139:7389
Accession Number
2003:413914 CAPLUS Full Text
Author/Inventor
Cho, Hyun-Nam; Jung, Sung Hyun; Son, Sang Won; Kim, Jong Bok

L6 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)
CAS Registry Number®
73100-44-4 CAPLUS
Reference Count
9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
Hit Structure

CAS Registry Number
73100-44-4 CAPLUS

Chemical or Trade Name
Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-

tetrayl)tetrakis- (CA INDEX NAME)




Controlled or Index Terms

73100-44-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(luminescent material and component)

Abstract

The invention refers to an electroluminescent material comprising at least one of the following: a compound with 1,7-phenanthroline skeletons, a benzoquinoline derivative, a spiro-compound I and a tetraphenylmethane derivative II [A1,2 = single bond, (un)substituted alkyl, ether thioether ketone amino chain, A1 ≠ A2; Z = C or Si; R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings; R17-36 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings, wherein at least one of R17-36 is -XAr; X = single bond, -(CH2)n-, O, S, -(Ph)n- or trivalent phosphor oxide; Ar = condensed aromatic or heterocyclic, and when X = trivalent phosphor oxide, Ar = aromatic hydrocarbon or heterocyclic].

Other Source

MARPAT 136:393083

Priority Patent Number (1)

JP 2000-357129

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

20001124

Priority Application Information

| | | |
|---|---|---|
| JP 2000-357129 | A | 20001124 |

Patent Number (1)

WO 2002043449

Kind Code (1)

A1

Patent Publication Date (1)

20020530

Application Number (1)

WO 2001-JP10214

Application Date (1)

20011122

Designated States (1)

**W:** CN, KR, US **RW:** AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

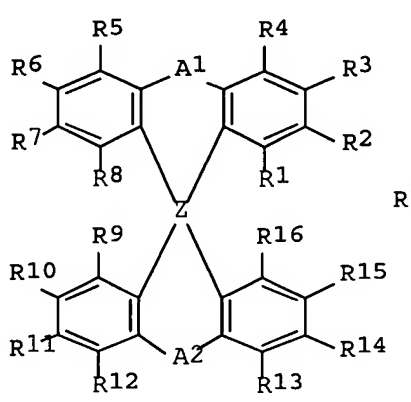
Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002043449 | A1 | 20020530 | WO 2001-JP10214 | 20011122 |

Family Accession Number Count

1

Language
Japanese
Document Type
Patent
Source
PCT Int. Appl., 77 pp. CODEN: PIXXD2
Patent Assignee/Corporate Source
Toray Industries, Inc., Japan
Title
Electroluminescent material and component
Document Number
136:393083
Accession Number
2002:408990 CAPLUS Full Text
Graphics

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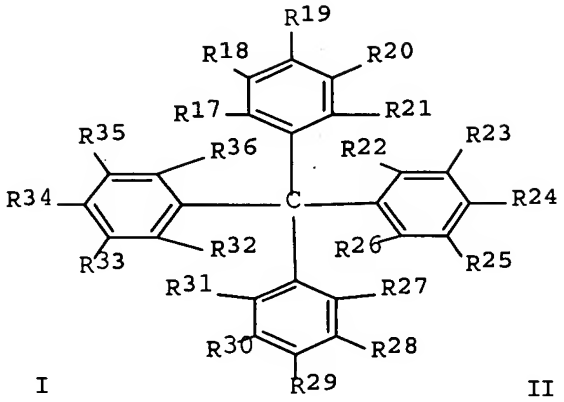



II

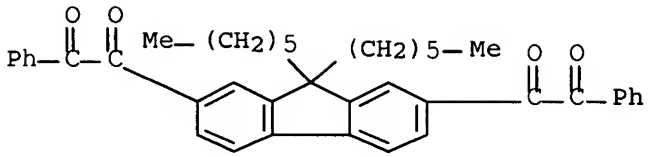
Author/Inventor
Tominaga, Tsuyoshi; Kitazawa, Daisuke; Makiyama, Aki; Kohama, Akira

L6 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)
CAS Registry Number®
435332-92-6 CAPLUS
435332-95-9 CAPLUS
Publisher
American Chemical Society, Division of Polymer Chemistry
Reference Count
10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
Hit Structure

CAS Registry Number
435332-92-6 CAPLUS

Chemical or Trade Name
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl- (9CI)

(CA INDEX NAME)



CAS Registry Number
435332-95-9 CAPLUS

Chemical or Trade Name
Ethanedione, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

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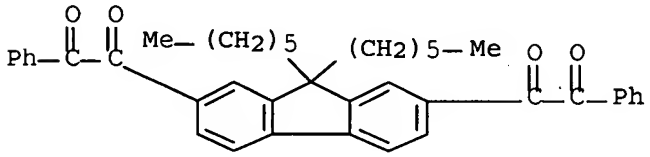
CRN 435332-92-6
CMF C41 H42 O4



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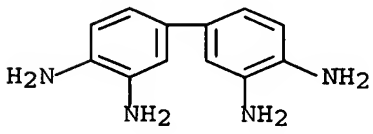
CRN 91-95-2
CMF C12 H14 N4



Controlled or Index Terms

435332-92-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation and absorption band and photoluminescence of electron-accepting π-conjugated hexylfluorene-polyquinoxalines)

435332-95-9P , 2,7-Bis(phenyloxoacetyl)-9,9'-di-n-hexylfluorene-3,3'-diaminobenzidine copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and absorption band and photoluminescence of electron-accepting
π-conjugated hexylfluorene-polyquinoxalines)

Abstract

The polyquinoxaline-fluorene (PFQx) polymers were prepared by condensation of 2,7-bis(phenyloxoacetyl)-9,9'-di-n-hexylfluorene and 2,7-bis(4-benzil)-9,9'-di-n-hexylfluorene with 3,3'-diaminobenzidine in a mixture of m-cresol and xylene, leading to PFQx I and PFQx II. The onset temperature of thermal decomposition of the PFQx under N was 400°. The PFQx I showed blue emission with photoluminescence (PL) maximum at 447 nm and absorption maximum at 407 nm. The PFQx II showed a strong absorption band of the π-π* transition of the π-conjugated segment around 397 nm with shoulder at 345 nm. The PL spectrum of PFQx II in solution exhibited a maximum emission peak at 468 nm.

Language

English

Document Type

Journal; (computer optical disk)

Source

Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(1), 91-92
CODEN: ACPPAY; ISSN: 0032-3934

Cleaned CS

Electronic Materials Devices Res. Center

Patent Assignee/Corporate Source

Electronic Materials Devices Res. Center, KIST, Seoul, 130-650, S. Korea

Title

New electron-accepting π-conjugated polyquinoxalines with fluorene unit

Document Number

137:20672

Accession Number

2002:229663 CAPLUS Full Text

Author/Inventor

Jung, Sung-Hyun; Suh, Dong Hack; Cho, Hyun-Nam

L6 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

Ethanedione, 1,1'-[9,9-bis(2-ethylhexyl)-9H-fluorene-2,7-diyl]bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)
Ethanedione, 1,1'-[9,9-bis(2-ethylhexyl)-9H-fluorene-2,7-diyl]bis[2-phenyl- (9CI) (CA INDEX NAME)

CAS Registry Number®

410546-77-9 CAPLUS
410546-68-8 CAPLUS

Publisher

American Chemical Society

Reference Count

54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
410546-77-9 CAPLUS

Chemical or Trade Name
Ethanedione, 1,1'-[9,9-bis(2-ethylhexyl)-9H-fluorene-2,7-diyl]bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

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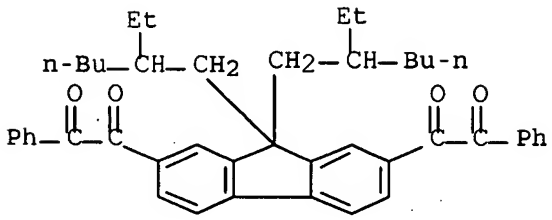
CRN 410546-68-8
CMF C45 H50 O4



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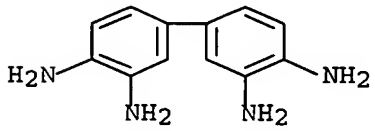
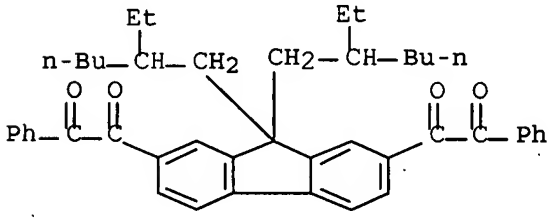
CRN 91-95-2
CMF C12 H14 N4



CAS Registry Number
410546-68-8 CAPLUS

Chemical or Trade Name
Ethanedione, 1,1'-[9,9-bis(2-ethylhexyl)-9H-fluorene-2,7-diyl]bis[2-phenyl-
(9CI) (CA INDEX NAME)



Controlled or Index Terms

410546-77-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(new series of blue-emitting and electron-transporting copolymers based on fluorene)

410546-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(new series of blue-emitting and electron-transporting copolymers based on fluorene)

Abstract

Conjugated copolymers having oxadiazole, quinoline, quinoxaline, and phenylenecyanovinylene moieties in the main chain based on fluorene were synthesized in good yields by Pd-catalyzed Suzuki coupling reaction, a new approach different from the traditional polyhydrazide precursor route (oxadiazole-containing polymers), acid-catalyzed Friedlander condensation reaction (polyquinolines), and Knoevenagel condensation polymerization (poly(phenylenecyanovinylene)). The thermal, electrochem., and optical properties of these copolymers were examined All these polymers possess excellent thermal stability with glass transition temps. of 114 - 208° and onset decomposition temps. of 387-415°. Cyclic voltammetry studies reveal that these copolymers possess low-lying LUMO energy levels ranging from -3.01 to -3.37 eV and low-lying HOMO energy levels ranging from -6.13 to -6.38 eV and may be promising candidates for electron-transporting or hole-blocking materials in light - emitting diodes. The polymers in thin films emit strong blue luminance around 414-476 nm with narrow bandwidth upon photoexcitation. Photoluminescence spectra of the polymers in the films are only red shifted by 7-11 nm compared to those in the solution, indicating that the aggregation and the excimer fluorescence are suppressed.

Language
English

Document Type
Journal

Source
Macromolecules (2002), 35(7), 2529-2537 CODEN: MAMOBX; ISSN: 0024-9297

Cleaned CS
Institute of Chemistry

Patent Assignee/Corporate Source
Center for Molecular Science, Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China

Title
New Series of Blue-Emitting and Electron-Transporting Copolymers Based on Fluorene

Document Number
136:316393

Accession Number
2002:123755 CAPLUS Full Text

Author/Inventor
Zhan, Xiaowei; Liu, Yunqi; Wu, Xia; Wang, Shuai; Zhu, Daoben

L6 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [oxybis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[phenylmethanone] (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [thiobis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [1,2-ethenediylbis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

CAS Registry Number®
222416-60-6 CAPLUS
222416-62-8 CAPLUS
289471-87-0 CAPLUS
289471-89-2 CAPLUS

Publisher
American Chemical Society

Reference Count
32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
222416-60-6 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [oxybis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

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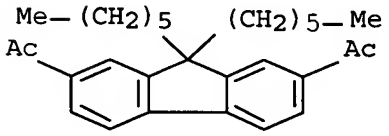
CRN 222416-59-3
CMF C29 H38 O2

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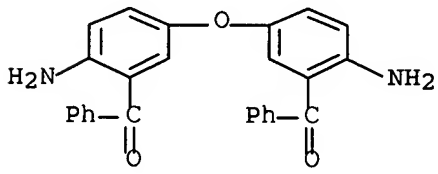
CRN 59827-14-4
CMF C26 H20 N2 O3




CAS Registry Number
222416-62-8 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[phenylmethanone] (9CI) (CA INDEX NAME)

CM
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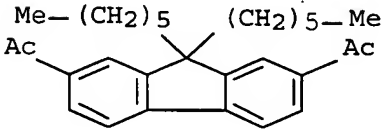
CRN 222416-59-3
CMF C29 H38 O2



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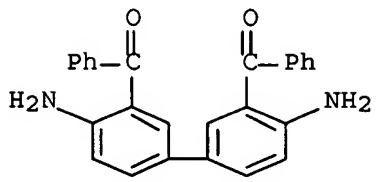
CRN 71713-10-5
CMF C26 H20 N2 O2



CAS Registry Number
289471-87-0 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [thiobis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

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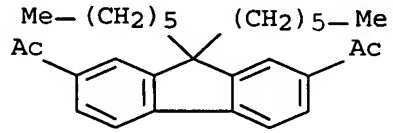
CRN 222416-59-3
CMF C29 H38 O2



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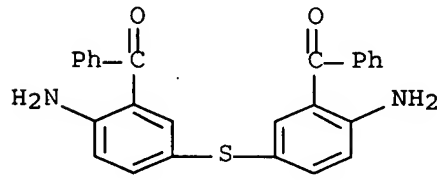
CRN 106500-65-6
CMF C26 H20 N2 O2 S



CAS Registry Number
289471-89-2 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [1,2-ethenediylbis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

CM
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CRN 222416-59-3
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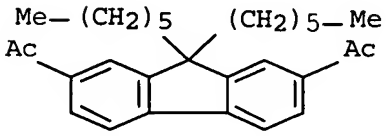


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CRN 94751-92-5
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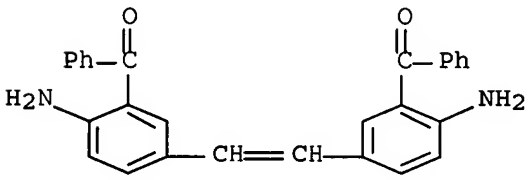


Controlled or Index Terms

222416-60-6 222416-62-8
RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(optical, luminescent and hole-blocking/electron-transporting properties of)

289471-87-0P 289471-89-2P , 2,7-Diacetyl-9,9-dihexylfluorene-4,4'-Diamino-3,3'-dibenzoylstilbene copolymer
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and optical, luminescent and hole-blocking/electron-transporting properties of)

Abstract

A series of polyquinolines containing the 9,9-dihexylfluorene unit in the main chain were synthesized via Friedlaender quinoline synthesis in good yields. The thermal, optical, luminescent , electrochem., and hole-blocking/electron-transporting properties of these polyquinolines were examined The glass transition temps. were in the range 195-243°C, and these polyquinolines had initial decomposition temps. of >388°C. Their optical and luminescent properties varied with the chain rigidity and conjugation length. Cyclic voltammetry studies reveal that these polyquinolines undergo irreversible oxidation onset around -6.0 eV, and their LUMO level ranged from -2.78 to -3.21 eV. The application of two of these polyquinolines as a hole-blocking/electron- transporting layer in polymeric LEDs was demonstrated.

Language
English

Document Type

Journal

Source

Macromolecules (2000), 33(16), 5880-5885 CODEN: MAMOBX; ISSN: 0024-9297

Cleaned CS

Seoul National University

Patent Assignee/Corporate Source

Department of Fiber Polymer Science, Seoul National University, Seoul, 151-742, S. Korea

Title

New polyquinoline copolymers: synthesis, optical, luminescent , and hole-blocking/electron- transporting properties

Document Number

133:193562

Accession Number

2000:473216 CAPLUS Full Text

Author/Inventor

Kim, Jong Lae; Kim, Jai Kyeong; Cho, Hyun Nam; Kim, Dong Young; Kim, Chung Yup; Hong, Sung Il

L6 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[[4'-(octyloxy)[1,1'-biphenyl]-4-yl]methanone] (9CI) (CA INDEX NAME)

CAS Registry Number®

280578-27-0 CAPLUS

Publisher

Wiley-VCH Verlag GmbH

Reference Count

24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
280578-27-0 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[[4'-(octyloxy)[1,1'-biphenyl]-4-yl]methanone] (9CI) (CA INDEX NAME)

CM
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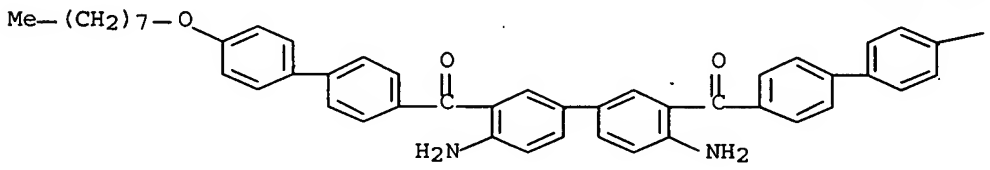
CRN 280578-26-9
CMF C54 H60 N2 O4

PAGE 1-A



—O—$(CH_2)_7$—Me

CM
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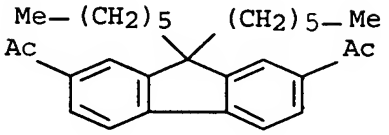
CRN 222416-59-3
CMF C29 H38 O2




Controlled or Index Terms

280578-27-0P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis and light emitting properties of new polyquinolines with a pendent 4'-octyloxybiphenyl group)

Abstract

Two novel AA-BB type polyquinolines with pendent 4'-octyloxybiphenyl groups (P1, P2) were synthesized successfully by the Friedlander polyquinoline synthesis and their thermal, luminescent and electrochem. properties were investigated. These polymers were soluble in convenient solvents and thermally stable showing initial decomposition temps. of >405°. EL spectra of P1 and P2 lie in the green region (530 nm) and yellow region (574, 470 nm), resp. The turn on voltages of the diodes (ITO/polyquinoline/Al) were 19 V for P1 and 9 V for P2. The quantum efficiencies of these LEDs , with each polymer as the emissive layer, were 0.0076% and 0.0011% photons per electron, resp.

Language
English
Document Type
Journal
Source
Macromolecular Chemistry and Physics (2000), 201(7), 768-773 CODEN: MCHPES; ISSN: 1022-1352
Cleaned CS
Seoul National University
Patent Assignee/Corporate Source
Department of Fiber & Polymer Science, Seoul National University, Seoul, 151-742, S. Korea
Title
Synthesis and light emitting properties of new polyquinolines with a pendent 4'-octyloxybiphenyl group
Document Number
133:89897
Accession Number
2000:348821 CAPLUS Full Text
Author/Inventor
Kim, Jong Lae; Kim, Jai Kyeong; Cho, Hyun Nam; Kim, Dong Young; Hong, Sung Il

L6 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
Chemical or Trade Name

Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [oxybis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[phenylmethanone] (9CI) (CA INDEX NAME)

CAS Registry Number®
222416-60-6 CAPLUS
222416-62-8 CAPLUS
Publisher
Elsevier Science S.A.
Reference Count
22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
Hit Structure

CAS Registry Number
222416-60-6 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [oxybis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

CM
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CRN 222416-59-3
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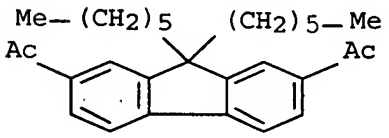


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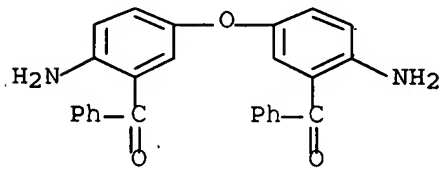
CMF C26 H20 N2 O3




CAS Registry Number
222416-62-8 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[phenylmethanone] (9CI) (CA INDEX NAME)

CM
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CRN 222416-59-3
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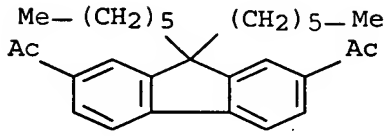


CM
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CRN 71713-10-5
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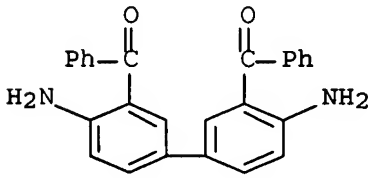


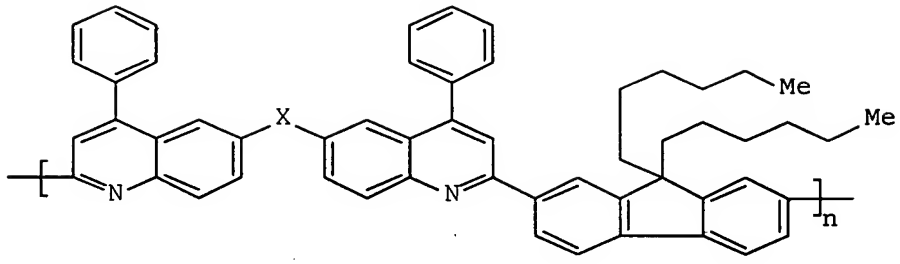

Controlled or Index Terms

222416-60-6 222416-62-8
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(polyquinoline copolymers as electron transporting layer in double-layer light -emitting diodes)

Abstract

Polyquinolines having the structure I, where X is a direct bond or O, are used as electron transporting conjugated polymers for double-layer electroluminescence (EL ) applications. A double-layer device structure combining I (X is a direct bond) as the electron transporting layer with the emissive poly(2-methoxy-5-(2'-ethylhexyloxy)- 1,4-phenylenevinylene) (MEHPPV) using an aluminum cathode exhibited strong emission (maximum at 572 nm) of MEHPPV with luminance up to 167 μW/cm2 (increased by a factor of 86). This double-layer device has a maximum quantum efficiency of 0.035%, which is a 35-fold increase compared to an ITO/MEHPPV/Al single-layer device.

Language
English
Document Type
Journal
Source
Synthetic Metals (2000), 114(1), 97-100 CODEN: SYMEDZ; ISSN: 0379-6779
Cleaned CS
Seoul National University
Patent Assignee/Corporate Source
College of Engineering, Department of Fiber and Polymer Science, Seoul National University, Seoul, 151-742, S. Korea
Title
Polyquinoline copolymers as electron transporting layer in light -emitting diodes
Document Number
133:178278
Accession Number
2000:345042 CAPLUS Full Text
Graphics




I

Author/Inventor

Kim, J. L.; Kim, J. K.; Cho, H. N.; Kim, D. Y.; Hong, S. I.

L6 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

1-Propanone, 1,1'-(9,9-diethyl-9H-fluorene-2,7-diyl)bis[3-(1,3-dioxolan-2-yl)- (9CI) (CA INDEX NAME)

CAS Registry Number®

249296-25-1 CAPLUS

Publisher

Royal Society of Chemistry

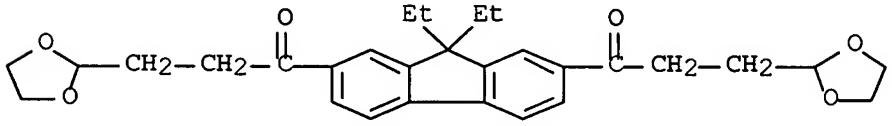
Reference Count

109 THERE ARE 109 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
249296-25-1 CAPLUS

Chemical or Trade Name
1-Propanone, 1,1'-(9,9-diethyl-9H-fluorene-2,7-diyl)bis[3-(1,3-dioxolan-2-yl)- (9CI) (CA INDEX NAME)




Controlled or Index Terms

249296-25-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and characterization of electroactive and luminescent fluorene-heterocycle-based hybrids)

Abstract

The synthesis, characterization, and electrochromic properties of copolymers derived from 9,9-dialkyl-2,7-dibromofluorene (I: alkyl = C10H21; alkyl = Et) and pyrrole, thiophene, 3,4-ethylenedioxythiophene, and furan are described. Two synthetic routes to 9,9-diethyl-2,7- bis(pyrrol-2-yl)fluorene (II) afford product in 30% and 20% yields, resp. Monomer I undergoes electropolymn. to yield electroactive polymer films. The lowest monomer oxidation potential (Ep,m=0.4 V vs. Ag/Ag+) is found in tetraethylammonium tosylate (TEATOS)-CH3CN, but film formation is slow. Spectroelectrochem. anal. of poly(II) reveals a band gap at

2.4 eV and upon polymer oxidation, two low energy absorptions peaking at 1.2 and 2.2 eV appear. This phenomenon is attributed to formation of bipolaron bands between the valence and conduction bands. Soluble fluorene-heterocycle polymers have been synthesized by the Stille coupling reaction of I and 2,5-bis(trimethylstannyl)thiophene, 5,5'-bis(trimethylstannyl)-2,2'- bithiophene, 2,5-bis(trimethylstannyl)-3,4-ethylenedioxythiophene, and 2,5-bis(trimethylstannyl)furan, resp., in high yields. The NMR spectra are consistent with the proposed structures of these polymers, and no evidence of ring opening of the furyl unit in one of the polymers is seen in the NMR and IR spectra. The mol. wts. of these polymers are in the range of 8000 g mol-1 with polydispersity indexes (PDI) of 2. These polymers have band gaps measured at 2.4 eV, while polymer 34d has its gap at 2.6 eV. These polymers undergo solution doping with SbCl5 to form new low energy bipolaron bands at the expense of the absorption in the UV-VIS. However, one of the polymer does not oxidatively dope with SbCl5.

Language
English

Document Type
Journal

Source
Journal of Materials Chemistry (1999), 9(9), 2189-2200 CODEN: JMACEP; ISSN: 0959-9428

Cleaned CS
University of Florida

Patent Assignee/Corporate Source
Department of Chemistry, Center for Macromolecular Science and Engineering, University of Florida, Gainesville, FL, 32611, USA

Title
Electroactive and luminescent polymers: new fluorene-heterocycle-based hybrids

Document Number
131:323231

Accession Number
1999:558358 CAPLUS Full Text

Author/Inventor
Tsuie, Barbara; Reddinger, Jerry L.; Sotzing, Gregory A.; Soloducho, Jadwiga; Katritzky, Alan R.; Reynolds, John R.

L6 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis- (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [oxybis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[phenylmethanone] (9CI) (CA INDEX NAME)

CAS Registry Number®
222416-59-3 CAPLUS
222416-60-6 CAPLUS
222416-62-8 CAPLUS

Publisher
American Chemical Society

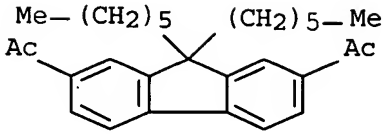
Reference Count
17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Hit Structure

CAS Registry Number
222416-59-3 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis- (9CI) (CA INDEX

NAME)




CAS Registry Number
222416-60-6 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with [oxybis(6-amino-3,1-phenylene)]bis[phenylmethanone] (9CI) (CA INDEX NAME)

CM
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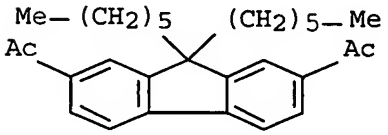
CRN 222416-59-3
CMF C29 H38 O2

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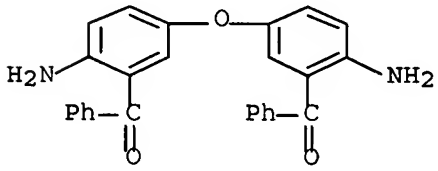
CRN 59827-14-4
CMF C26 H20 N2 O3




CAS Registry Number
222416-62-8 CAPLUS

Chemical or Trade Name
Ethanone, 1,1'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with (4,4'-diamino[1,1'-biphenyl]-3,3'-diyl)bis[phenylmethanone] (9CI) (CA INDEX NAME)

CM

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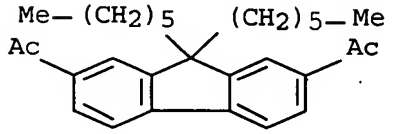


CM
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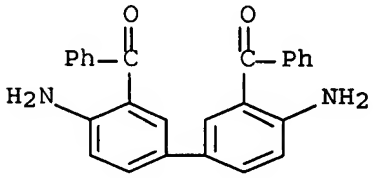
CMF C26 H20 N2 O2




Controlled or Index Terms

222416-59-3P , 2,7-Diacetyl-9,9-dihexylfluorene
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation of thermally stable quinoline polymers with blue electroluminescence characteristics)

222416-60-6P , 2,7-Diacetyl-9,9-dihexylfluorene-4,4'-diamino-3,3'-dibenzoyldiphenyl ether copolymer 222416-62-8P , 2,7-Diacetyl-9,9-dihexylfluorene-3,3'-dibenzoylbenzidine copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of thermally stable quinoline polymers with blue electroluminescence characteristics)

Abstract

2,7-Diacetyl-9,9-dihexylfluorene was polycondensed with either 4,4'-diamino-3,3'-dibenzoyldiphenyl ether or 3,3'-dibenzoylbenzidine in a Friedlander quinoline-type synthesis to give thermally stable polymers with blue electroluminescence characteristics.

Language
English
Document Type
Journal
Source
Macromolecules (1999), 32(6), 2065-2067 CODEN: MAMOBX; ISSN: 0024-9297
Cleaned CS
Seoul National University
Patent Assignee/Corporate Source
Department of Fiber and Polymer Science, Seoul National University, Seoul, 151-742, S. Korea
Title
New quinoline-based alternating copolymers containing a fluorene unit
Document Number
130:267829
Accession Number

1999:131473 CAPLUS Full Text

Author/Inventor

Kim, Jong Lae; Cho, Hyun Nam; Kim, Jai Kyeong; Hong, Sung Il

L6 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

Ethanone, 1,1',1''-(9,9'-spirobi[9H-fluorene]-2,2',7-triyl)tris- (9CI) (CA INDEX NAME)

Ethanone, 1,1',1'',1'''-(9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetrayl)tetrakis- (CA INDEX NAME)

CAS Registry Number®

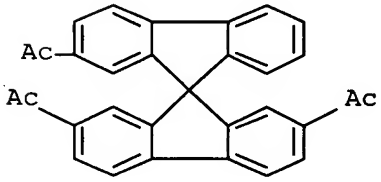
73100-43-3 CAPLUS

73100-44-4 CAPLUS

Hit Structure

CAS Registry Number
73100-43-3 CAPLUS

Chemical or Trade Name
Ethanone, 1,1',1''-(9,9'-spirobi[9H-fluorene]-2,2',7-triyl)tris- (9CI) (CA INDEX NAME)




CAS Registry Number
73100-44-4 CAPLUS

Chemical or Trade Name
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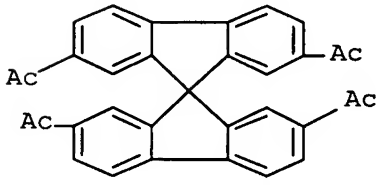



Controlled or Index Terms

73100-43-3P 73100-44-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(spiro compds. and their use as electroluminescent materials)

Abstract

The use of spiro compds. comprising 2 independently selected conjugated systems joined at a C atom having 2 bonds to each of the conjugated systems as electroluminescent materials is described. 9,9'-Spirobifluorene derivs. are particularly preferred. Electroluminescent devices employing the compds. are also described.

Other Source

MARPAT 124:18003

Priority Patent Number (1)

DE 1994-4411969

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19940407

Priority Application Information

| | | |
|---|---|---|
| DE 1994-4411969 | A | 19940407 |

Patent Number (1)

EP 676461

Kind Code (1)

A2

Patent Publication Date (1)

19951011

Application Number (1)

EP 1995-104475

Application Date (1)

19950327

Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 676461 | A2 | 19951011 | EP 1995-104475 | 19950327 |

Family Accession Number Count

1

Language

German

Document Type

Patent

Source

Eur. Pat. Appl., 51 pp. CODEN: EPXXDW

Patent Assignee/Corporate Source

Hoechst A.-G., Germany

Title

Spiro compounds and their use as electroluminescent materials

Document Number

124:18003

Accession Number

1995:982387 CAPLUS Full Text

Author/Inventor

Lupo, Donald; Salbeck, Josef; Schenk, Hermann; Stehlin, Thomas; Stern, Roland; Wolf, Arno; Kreuder, Willi

L6 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

Chemical or Trade Name

2-Propen-1-one, 1,1'-fluorene-2,7-ylenebis[3-phenyl- (8CI) (CA INDEX NAME)

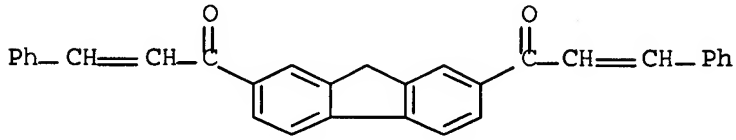
CAS Registry Number®

7765-71-1 CAPLUS

Hit Structure

CAS Registry Number
7765-71-1 CAPLUS

Chemical or Trade Name
2-Propen-1-one, 1,1'-fluorene-2,7-ylenebis[3-phenyl- (8CI) (CA INDEX NAME)



Controlled or Index Terms
7765-71-1P , 2-Propen-1-one, 1,1'-fluoren-2,7-ylenebis[3-phenyl-
RL: PREP (Preparation)
(preparation of)

Abstract
To bis(4-acetylphenyl) sulfide in EtOH suspension was added BzH and 10% aqueous NaOH and the mixture stirred 3 hrs. to yield 45% bis(4-cinnamoylphenyl) sulfide, m. 151-3°. Similarly were prepared: 70% 4-cinnamoylterphenyl, m. 228-9°; 25% bis(4-cinnamoylphenyl)methane, m. 155-7°; bis(4-cinnamoylphenyl)ethane, m. 186-7°; bis(4-cinnamoylphenyl) ether, m. 164.5-5.5°; 2,7-dicinnamoylfluorene, m. 152-4°. Uv spectra are given. The spectra showed bathochromic shifts of the bands with increasing intensity of absorption with accumulation of benzenoid rings in the aryl radical of the ketones and between the carbonyl groups of diketones. Twinning of the chalcone molecule intensified the uv absorption greatly while interruption of conjugation by a bridge group led to a hypsochromic band shift.

Language
Russian
Document Type
Journal
Source
Zhurnal Obshchei Khimii (1966), 2(6), 1060-3 CODEN: ZOKHA4; ISSN: 0044-460X
Cleaned CS
Polytech. Inst.
Patent Assignee/Corporate Source
Polytech. Inst., Odessa
Title
Unsaturated mono- and di-ketones
Document Number
65:81958
Accession Number
1966:481958 CAPLUS Full Text
Author/Inventor
Bondarenko, V. E.; Dashevskii, M. M.; Krasovitskii, B. M.; Pereyaslova, D. G.
Original Reference
65:15261g-h,15262a

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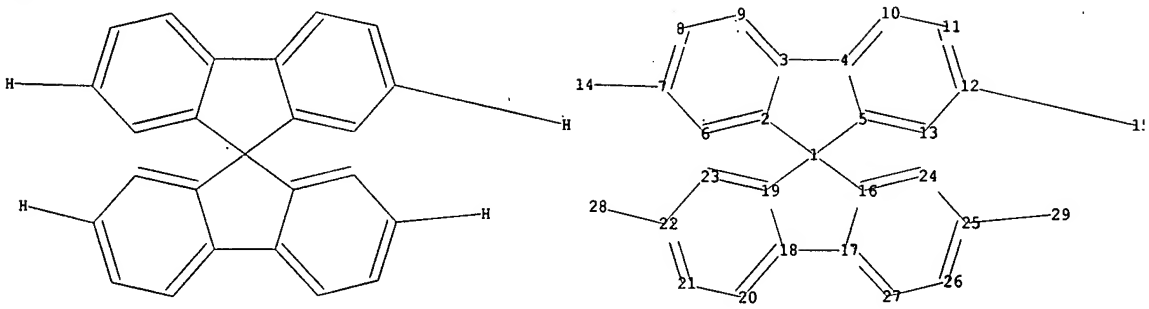

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14 15 28 29

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 16 17 18 19 20 21 22 23 24 25 26 27

chain bonds :

7-14 12-15 22-28 25-29

ring bonds :

1-2 1-5 1-16 1-19 2-3 2-6 3-4 3-9 4-5 4-10 5-13 6-7 7-8 8-9 10-11 11-12 12-13 16-17
16-24 17-18 17-27 18-19 18-20 19-23 20-21 21-22 22-23 24-25 25-26 26-27

exact/norm bonds :

1-2 1-5 1-16 1-19 3-4 17-18

exact bonds :

7-14 12-15 22-28 25-29

normalized bonds :

2-3 2-6 3-9 4-5 4-10 5-13 6-7 7-8 8-9 10-11 11-12 12-13 16-17 16-24 17-27 18-19 18-
20 19-23 20-21 21-22 22-23 24-25 25-26 26-27

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:CLASS 15:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom
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Structure attributes must be viewed using STN Express query preparation.

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L2 163 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
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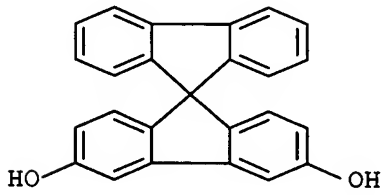


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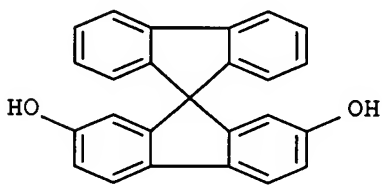


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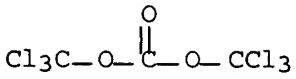

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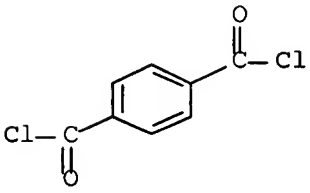

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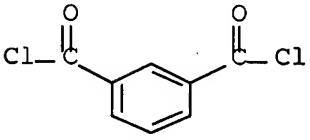

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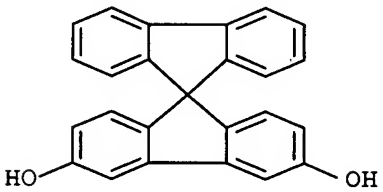

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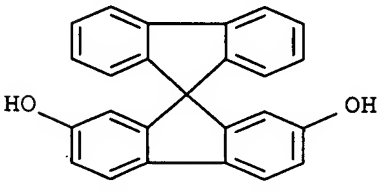

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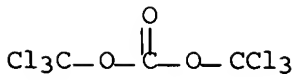

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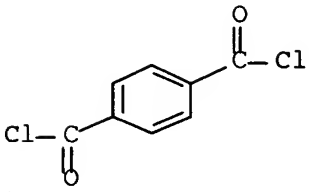

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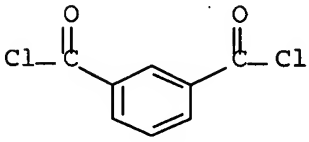

Substance Class Identifier
PMS
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Author/Inventor
1,3-Benzenedicarbonyl dichloride, polymer with 1,4-benzenedicarbonyl dichloride, bis(trichloromethyl) carbonate, 9,9'-spirobi[9H-fluorene]-2,7- diol and 9,9'-spirobi[9H-fluorene]-3,6-diol (9Cl)

L2 163 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
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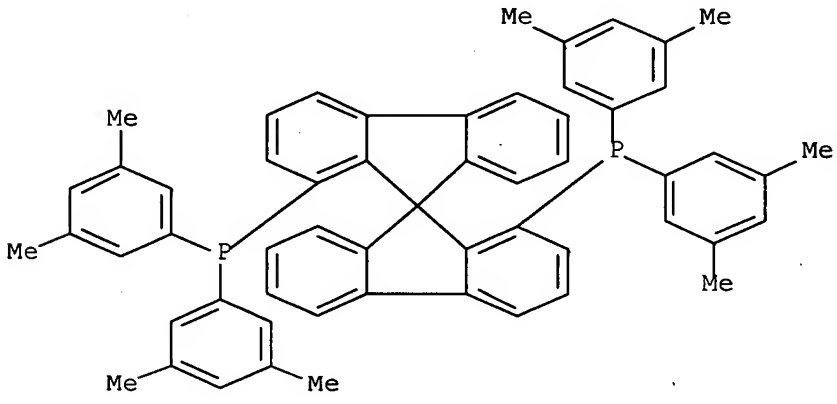

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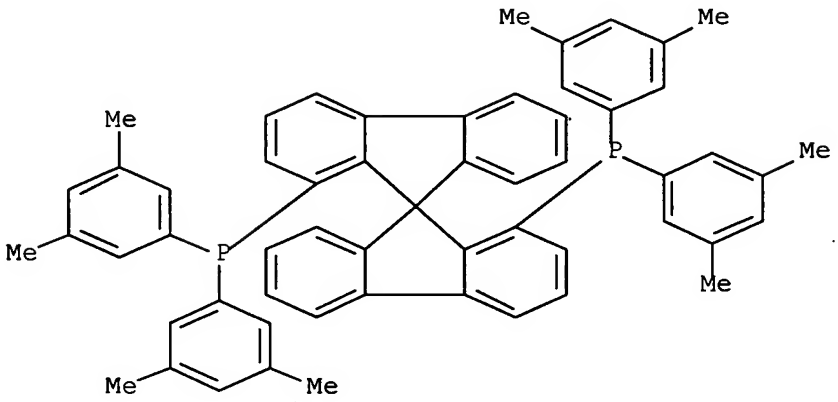


Molecular Formula
C57 H50 P2
Author/Inventor
Phosphine, (9R)-9,9'-spirobi[9H-fluorene]-1,1'-diylbis[bis(3,5- dimethylphenyl)- (9CI)

L2 163 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
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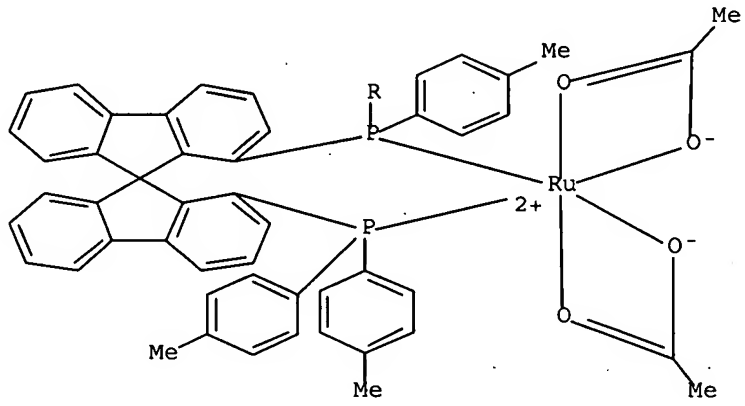
PAGE 1-A

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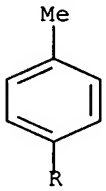

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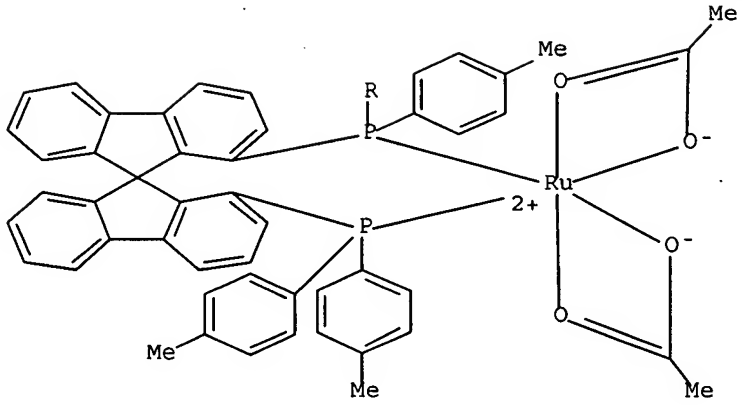


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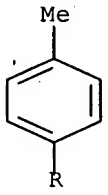


Substance Class Identifier
CCS
Molecular Formula
C57 H48 O4 P2 Ru
Author/Inventor
Ruthenium, bis(acetato-κO,κO')[(9R)-9,9'-spirobi[9H-fluorene]- 1,1'-diylbis[bis(4-methylphenyl)phosphine-κP]]-, (OC-6-22)- (9CI)

L2 163 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
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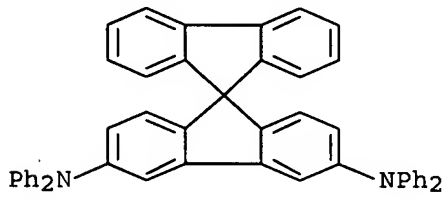


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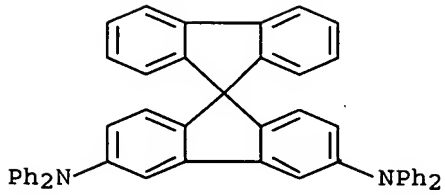


Molecular Formula
C49 H34 N2
Author/Inventor
9,9'-Spirobi[9H-fluorene]-3,6-diamine, N,N,N',N'-tetraphenyl- (9CI)

L2 163 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
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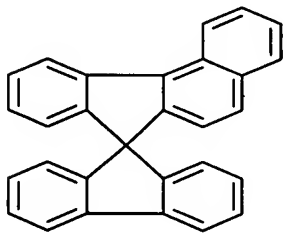

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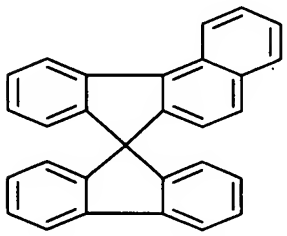

Substance Class Identifier
RPS
Molecular Formula
C29 H18
Author/Inventor
Spiro[7H-benzo[c]fluorene-7,9'-[9H]fluorene] (9CI)

L2 163 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
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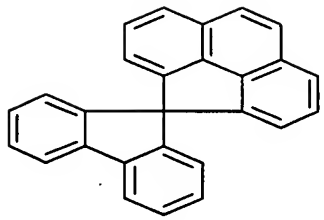

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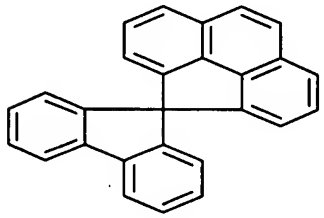

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Author/Inventor
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